Lectures
ON THE
MECHANISM OF RESPIRATION IN PHYSIOLOGICAL & PATHOLOGICAL CONDITIONS.

Delivered before the Faculty of Physicians and Surgeons of Glasgow,

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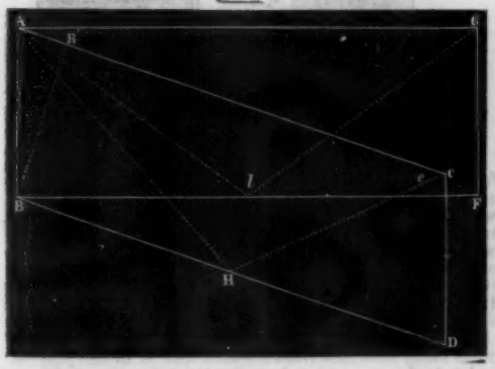
LECTURE I.—PART II.

THE third of the great physiologists of the seventeenth century who devoted very special attention to the function of respiration was a native of Cornwall—John Mayow, born in 1645. He was a student of All Souls in Oxford and took degrees in Civil Law and Medicine. Regarding the chemistry of respiration, he was far in advance of his time, as in 1674 he published a series of tracts, in one of which he teaches that in the atmosphere there is a special constituent which he calls the nitro-aerial spirit or igno-aerial spirit, that he says is the food of life and flame, and is absorbed by the blood, and that by it in the lungs animal heat is produced. He thus, exactly one hundred years before Priestley, foreshadowed the discovery of oxygen. As regards the mechanism of respiration, his labours are the less of service to science in that, curiously, he seems to have supposed that the ribs in their lowest position were almost at right angles to the spine. He affirms that both sets of intercostals are inspiratory.

The work done by these three distinguished physiologists in the seventeenth century, and the publication of very reliable treatises on anatomy by Diemerbroeck, at Utrecht, in 1672; by Philip Verheyen, at Brussels, in 1693; and by Winslow, at Paris, in 1711, supplied the necessary data for a much more comprehensive inquiry into the mechanism of respiration than had thereto been possible, and in 1727 George Edward Hamberger published his celebrated dissertation on the Mechanism and Genuine Use of Respiration. His work consists of seventy-three propositions, occupying forty-four small quarto pages. So far as I can discover, there are but three copies of the book in this country—the one I have seen is that in the library of the Royal Medico-Chirurgical Society of London,—which is not the original edition, but a reprint of later date. In illustration of his views he gives this diagram (Fig. 3)

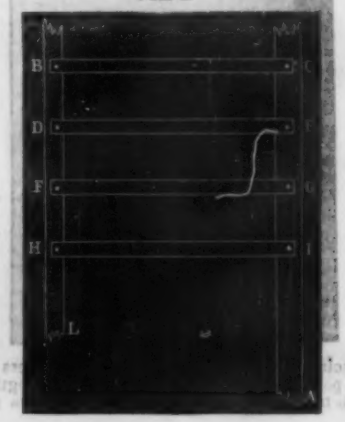
FIG. 3.



that has been used in Germany in most disquisitions on the movements of the chest since his time. The fixed pillar A B he assumed to represent the spine, and the levers A C and B D the ribs, with axes movable round A and B, and separated and yet connected at their anterior extremities by the rigid body C D, and movable round the axes C and D. He represents the ribs, A C and B D, as of equal lengths, and so the structure is a parallelogram. Assuming that in expiration the ribs are so inclined to the spine that the angle formed by the spine and the lower border of each is less than a right angle, he reasons regarding the effect of the elevation of these in the following manner in proposition 21:—Placing the levers obliquely downwards as in A C and B D, and elevating them so that A D with B F will contain a right angle, it is plain: 1st. That the distance B C is less than B F. 2nd. With B C the distance of the line C D from A B before elevation, the distance of the line G F after elevation of the levers A C and B D is greater from the fixed fulcrum A B than before elevation. 3rd. With the parallelograms A F and A D having the same base A B, but with different altitudes, A F is greater in area than A D. 4th. If from B is led to A C a perpendicular B E, which is the distance between the levers A C and B D, this perpendicular is less than the line A B, which is the distance between the lines A G and B F; in one word, the elevated levers have a greater distance between them than when not elevated. Conversely, in proposition 22 he reasons that by the descent of the levers from the position of right angles:—1st, the body, G F, comes nearer to A B; 2nd, the whole parallelogram becomes less; 3rd, the levers approach nearer to one another. The truth of these propositions of Hamberger with regard to parallelograms is of course indisputable, and in so far as the thoracic walls can be regarded as constructed on the parallelogrammic type they apply to it in its various movements.

Very curiously, in this country the book by Hamberger would seem to have received but little attention; and this

FIG. 4.



is the more wonderful that certain other parts of it led in Germany to a very warm discussion between him and Haller, a discussion that Hamberger afterwards printed in full. So little, indeed, was known in England of what Hamberger had done, that in the first quarter of the present century the late Dr. John Hutchinson did it all over again, and for four years after he had done it did not know that he had been anticipated by nearly a century in his work; and it is from Hutchinson, and not from Hamberger, that our home anatomists and physiologists have for the most part received their ideas on the subject. In all essential particulars the teaching of the two men is the same, only the language of the older of them is by far the more elegant and precise. They both assume that the movements of the chest are comparable to those possible to parallelograms, and deduce conclusions accordingly, and both constructed a movable machine to illustrate this, such as I show you. (Fig. 4.) But I must proceed to show that in many particulars this arrangement is not a correct representation of the thoracic mechanism, and that some conclusions founded on the supposed similarity are entirely wrong. To make this clear let me point out the range of movements possible to this parallel structure (Fig. 4), and the causes that confine these movements within certain limits—for a limit there is to the movement both in an upward and downward direction,—and the whole movement possible to each lever in the arrangement is less than half a circle—less than 180°. Let A in

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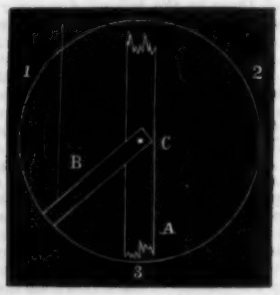
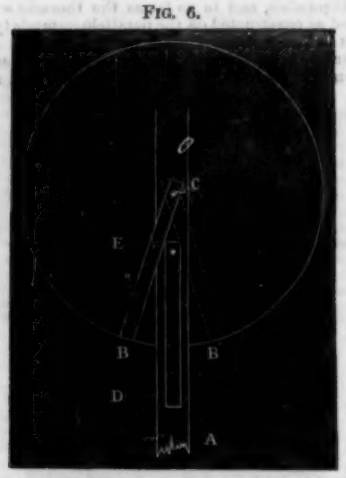
Fig. 5 be a fixed pillar, and the lever C B attached to it by a freely movable pivot at C. It is self evident that the lever can be moved through the whole circle 1 2 3, and in

FIG. 5.



either direction. It has a range of 360°. In Fig. 6 in addition to the lever, C B, let there be a second lever, E D, attached to the same pillar, A, and to the same side of it,

FIG. 6.



and the point of attachment of E D to be at a less distance from the point of attachment of C B than the length of C B, and let E D be of the same length as C B, it is manifest

FIG. 7.

FIG. 8.

that the lever C B can move through the circle until it comes in contact with the parts of lever E D about the pivot E, by which it is prevented from entering the sector B B'. In like manner, the parts of lever C B about the pivot C render it impossible for E D to enter a similar segment at the top of the circle that would be described by E D. Each lever if moved ndependently of the other can travel through the greater part of a circle, being precluded from entering only a very small sector. But placing the levers on the same side of the pillar A as in Fig. 7, let us suppose that from some cause they cannot be moved independently of one another, that the motive power can act only *simultaneously on both*, and also that it acts on both *uniformly as regards direction*, then must the range of each be less than half a circle, for when C B (Fig. 8) is brought to a standstill by the parts about E, E D also will cease to move; and so too when E D is brought to rest by the parts about C, C B must stand still as well. But a rigid rod, L, attached to the extremities of the parallel levers C B and E D, as in Fig. 9, must necessarily cause any force acting on either lever, or on both levers, to act on both *simultaneously*, and also *uniformly* as regards direction,

FIG. 9.

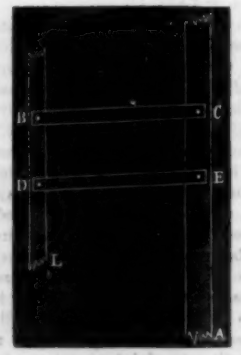


FIG. 10.

FIG. 11.

for C B cannot now be moved without pulling E D with it, and so must stop when E D can go no further, as happens when it comes against C (Fig. 8); and similarly E D cannot travel without C B, and must stop when C B stops, which is when it comes against E (Fig. 8). For these reasons the range of movement of the mechanical arrangement of Hamberger (Fig. 4) is limited for each and all of the levers to less than 180°. But, as I have already said, this parallel structure does not accurately represent the thoracic mechanism, and the departure of the thoracic from the parallel type introduces many most important modifications as to the possible and actual movements of respiration. In two most important particulars the thorax departs from the parallel arrangement of Hamberger; the spine is not a straight column, but *is curved;* and the sternum is not parallel to the general direction of the spine, but is inclined to it at a very considerable angle.

That the dorsal region of the spine, to which the ribs

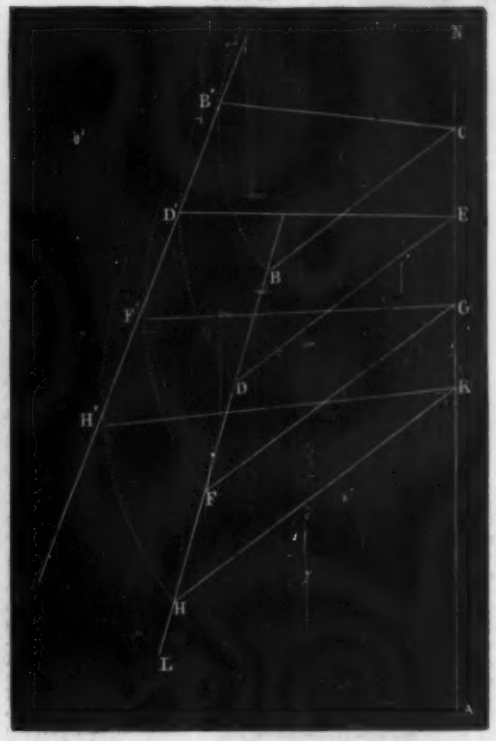
are articulated, is curved, with the concavity looking forwards, everyone is aware; but it does not appear to have been noted that the line which would join or intersect the costo-vertebral articulations is always much more curved than the general contour of the spine itself, forming a segment of a somewhat smaller circle than the general contour of the dorsal curve. Yet such is most decidedly the case. Fig. 10 shows the curve of the line of the costo-vertebral articulations of a thorax that in the fresh condition I embedded in plaster of Paris, and when quite dry and hard was sawn on one side in the line of the joints of the heads of the ribs with the spine. In Fig. 11 is shown the costo-vertebral curve from a cast of the cavity of the thorax taken from a fresh subject, and Fig. 12 shows the curve in a cast taken from a frozen subject. The curving you see is in all these well marked, and thus the thoracic structure departs in a most important respect from Hamberger's parallel machine. The second point, in which it diverges from the type of the mechanical arrangement of Hamberger, is that the sternum is not parallel to the general direction of the spinal column, but is very considerably inclined to it. That the sternum is inclined to the spine no one will deny, but not many have realised how very marked the angle of inclination really is. Fig. 12 represents accurately the mutual inclination of di-

FIG. 12.

rections of the spine and sternum in a cast from a frozen subject. And so far are the spinal and sternal lines from being parallel to one another, that if produced upwards they would at no great distance intersect. Very far, then, does this structure depart from the parallel type, and thus we are led to inquire what modifications as regards movement are introduced by the departure of the thorax from the parallel type, modifications of movement, I mean, as compared with those of Hamberger's machine.

First, I will consider the effect of the inclined position of the sternum to the spine. In this model (Fig. 13) I have, as in Hamberger's machine, an upright pillar, A representing the spinal column, a wooden rod, L for the sternum, and this inclined to the spine, and the rib levers C B and E D parallel to one another, and so placed that the inferior border of each forms with the spine an angle that is less than a right angle. (In the meantime will the reader kindly disregard the two lower rib levers G F and K H.) If now I elevate the sternum the upper lever C B comes to be at right angles to the spine, but when it is exactly at right angles to the spine the second lever E D has not yet attained to that position. Still further elevation, however, will bring E D to right angles with the spine, as is shown in the diagram, where E D has become E D'. But when the second lever has attained to right angles the first has passed that phase, as shown by the line C B' in the figure. Here, then, we have a most important difference between this arrangement and Hamberger's, for with a parallelogram both levers necessarily come to be at right angles simultaneously. Hamberger justly reasoned that when his rib levers in his parallel machine come to be at right angles to the spine that the greatest area had been attained. But in the arrangement shown in Fig. 13, as both levers cannot simultaneously be perpendicular to the spine, we have to note in the case of the trapezium C, E, D', B', in what position of elevation the greatest area is attained. Geometry answers that the area is greater when the longer of the two levers is at right angles to the spine than when the shorter is in that position. Therefore, the thoracic arrangement being not parallel but approaching in form to a trapezoid or trapezium, we must alter the teaching of Hamberger and Hutchinson to this—that any intercostal space will have its greatest area when the larger of the two ribs bounding it forms a right angle with the spine. But now suppose the sternum to be once more depressed to its original position L, with C B and E D again parallel to each other, and let two more levers G F and K H be added, both of them parallel to the higher levers. We have now three trapezoidal spaces and obviously

FIG. 13.



they can not all at the same time be at the greatest possible area. For when the upper space has the longer of its two rib levers at right angles to the spine, the greatest sides of the second and third spaces will not yet have attained to such position, and when by continuing to elevate the larger of the rib levers of the third space reaches this position, those of the upper two spaces will have passed that position, and both those areas will be diminishing. But the gain of area of the lower space more than makes up for the loss of area in the upper spaces, and so the contained area of the whole figure is greatest when the largest of the four levers is perpendicular to the spine. But now, with a model having its parts arranged as in the depressed position shown in Fig. 13, I will endeavour to elevate the sternum from the position B L until H K is perpendicular to A N,—but I cannot. Elevation to such

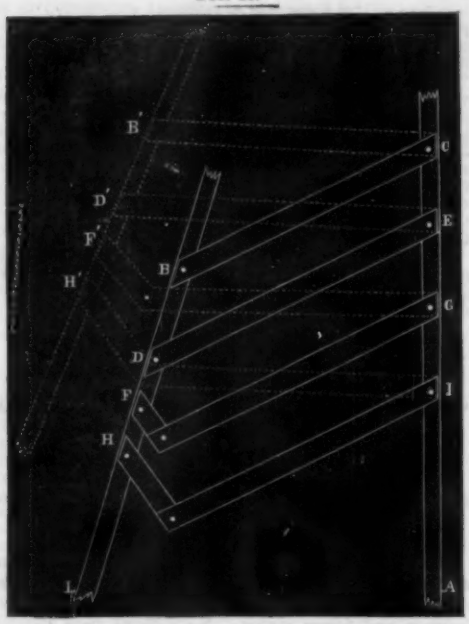
an extent is impossible. And if I seek to depress the sternum below the position B L, I find that the range of movement downwards is also extremely limited. And if I substitute for the straight spine at N, a spine having the natural curve of the vertebral column of which I have already spoken (Figs. 10 and 11), the difficulty of movement becomes still greater—in fact the apparatus is well nigh immovable. Here there is a most important difference between the arrangement of Hamberger and Hutchinson—having parallel spine and sternum, and parallel levers—and the arrangement having the true spinal curvature, and the sternum inclined to the spine. For Hamberger's machine (Fig. 4) permits of movement through a range of little less than half a circle, as shown in Fig. 14, but the one I show you with curved spine and inclined sternum is all but rigid.

FIG. 14.

What is the nature then, we ask, of the mechanical difficulty introduced into the arrangement by curving the spine and placing the sternum in an inclined position towards it? To understand this, let the two lower levers, G F and K H, in Fig. 13 be detached from the sternum L, then it will be found that the sternum may, still having the two upper levers connected with it, be moved through a very considerable range either upwards or downwards—a range not so great as in Hamberger's machine, but not very much short of it. If, having elevated the sternum L until E D attains to the position E D' perpendicular to A N, we seek to reapply G F and K H to it at their former points of attachment to A F' and H', we shall find they are too short to reach to these points, as is shown in the diagram; and the degree of incompetency of the fourth lever, K H, is still greater than that of the third lever, G F; and if there were a fifth lever, the deficiency there would be still greater,—and so on increasing for every additional lever downwards. If the sternum be gradually depressed again, a point of depression will be reached where G F and K H may once more be attached to the sternal bar. If from the position L it be now attempted to carry the sternum in a downward direction, it will soon come to a standstill; and if now all the levers but the upper two be detached, and depression, which thus becomes possible, be made, it will be found on endeavouring to reapply the upper levers that they are now too long, their extremities project beyond the proper points of attachment. In this arrangement, then, in Fig. 13 with the inclined sternum the range of movement upwards is limited, because the lower levers will not lengthen, and downwards because they will not shorten. And the range is made enormously more limited when the spinal column has the natural curvature given to it. For an explanation of this in more precise terms let us look at this parallelogrammic model, Fig. 4; the articulations of the four levers with the sternal piece are all in a perpendicular line, they are in the same vertical plane. If I elevate to the position L' in Fig. 14, they still all lie in one plane; so also if depressed to L. In whatever phase of elevation or depression, having got the plane in which two of these anterior articulations lie, in that same plane all the others will be found. In the apparatus having the inclined sternum and curved spine, in the first original position L, Fig. 13, the anterior ends of the four levers lie also in one vertical plane. Detaching the lower levers and raising the sternum with its two upper levers to the position in which the second lever becomes perpendicular to the spine, B' and D' are in the same plane; but if now the third lever be moved upwards through such an angular distance as will bring its anterior extremity opposite to its proper point of attachment to the sternal line, it will not be in the same plane as are B' and D'; and if I elevate the fourth lever through such an angular distance as will bring its anterior end opposite to its proper point of attachment, it will be found in a plane different from that in which B' and D' together lie, or that in which D' and F' together would lie. One plane joins the first and second, another the second and third, and still another the third and fourth anterior ends of the levers in their elevated positions. The straight line that joined all these anterior extremities of the ribs in their first position (L) would, to permit of elevation, need to be broken into as many pieces as there are interspaces, and each piece would be part of a plane different from the plane of any of the others. The curvature of the spine, and the inclined position of the sternum to the spine, thus unite to introduce a mechanical hindrance that would render impossible the necessary movements of the thoracic walls in respiration, were it not that an expedient is resorted to by which the difficulty is overcome. On looking at Fig. 13 the idea suggests itself that the mechanical difficulty might be obviated if the sternum were made sufficiently flexible to allow of its being curved backwards during inspiration, and so make up for the shortcoming of the lower ribs. And experiment shows that to a minute fractional extent the sternum in inspiration does yield in the way I have indicated. But this is extremely small even in the sternum of a child, and is infinitesimal in the case of the ossified sternum of the adult in normal respiration. Indeed, if the sternum were to any large extent so to adapt itself to this mechanical exigence by its lower portion becoming curved to the necessary extent, the antero-posterior increase of thoracic area, which is a principal end sought in the elevation of the sternum, would be very materially interfered with, as full antero-posterior enlargement would then take place only at the upper and shallower part of the thorax. But another expedient suggests itself. The rib levers proceed from the spine to the sternum by a long curved course round one-half of the body. Obviously if these lower levers would but consent to straighten themselves somewhat in inspiration, the mechanical shortening might be met. And again, as in the case of the sternum, there is a slight yielding in the required direction, but it is again only to a minute fractional extent of what would be required were the difficulty to be met by this means alone. For were there any great yielding here it would be at the expense of increase in the transverse diameter of the chest, and to that extent the inspiratory enlargement would be interfered with. But a method is called in aid that in no way compromises the inspiratory enlargement of the thorax, but, on the contrary, of itself very greatly adds thereto. The rib is not directly connected with the sternum, there being between the sternum and every rib a shorter or longer costal cartilage. In the case of the first rib this cartilage is very short, and its direction is just the continuation of the direction of the rib itself. The second cartilage is longer than the first; in many cases it pursues the same course towards the sternum as the rib itself, but in others, instead of continuing the downward direction of the rib, it curves upwards somewhat in its way to the sternum, and forms with the rib an obtuse angle. In the case of the third rib, the cartilage is considerably longer than that of the second, and in every instance it departs from the course pursued by the rib, always curving up to join the sternum, and always making an angle with the rib, an angle less obtuse than the angle formed by the second rib and cartilage. The fourth cartilage, again, is longer than the third, and the angle it makes with its rib more acute than the third angle; and, descending, we find that every succeeding cartilage is longer than the one above, and all the angles are more acute than the upper four. In this cast from a frozen subject, the cartilages increase in length from the first, which is $\frac{1}{4}$ in., to the seventh, which is $2\frac{1}{4}$ in. The influence of the eighth rib on the sternum is exerted through means of a length of cartilage of $3\frac{3}{4}$ in., the ninth by a cartilage of five inches, the tenth by a cartilage of $6\frac{3}{4}$ in. By this structural arrangement thoracic movement is made possible, for, in inspiration, by the opening of the costo-cartilagic angle each combined rib and cartilage becomes longer. Our trapezoidal machine (Fig. 13) showed us that in the case of the two upper rib levers, no mechanical difficulty exists, and nature accordingly does not provide any mechanical expedient for lengthening them. But, from this downwards, help is required, and that in a greater and greater degree as we descend, and to a greater and greater degree it is given, just in proportion to the need of it, for the fourth combined rib and cartilage permits of greater lengthening than the third, the fifth than the fourth, and so on until in the lower ribs that have sternal connexions it becomes enormous. In this model (Fig. 15) is shown the effect of introducing parts corresponding to the costal cartilages and free movement is allowed, while in this arrangement (Fig. 13) without them almost complete rigidity would prevail. The opening of these costo-cartilagic angles occurs to a less or

greater extent in every inspiration. Taking, for example, the seventh costo-cartilagic angle on the left side, I found that an inch and a half above the apex of the angle with a deep

FIG. 15.



inspiration the transverse distance between rib and cartilage was increased as follows:—

Male, aged	39	...	Normal chest,	$\frac{5}{16}$	inch.
,, ,,	52	...	,, ,,	$\frac{1}{4}$	,,
,, ,,	40	...	,, ,,	$\frac{3}{8}$	,,
,, ,,	47	...	Slight Bronchitis,	$\frac{1}{4}$	,,
,, ,,	18	...	,, ,,	$\frac{5}{16}$	,,
,, ,,	47	...	Mitral disease,	$\frac{5}{16}$	,,
,, ,,	32	...	,, ,,	$\frac{1}{4}$	,,

The mechanical difficulty introduced by the curved form of the spine and the inclined position of the sternum is thus obviated in a most effective and beautiful manner by a means that in no way militates against the great object that is in view in the elevation of the costal parietes—the increase of the thoracic capacity. On the contrary, this very expedient in itself increases the internal area—the cartilages being, in fact, the representatives in man of the sternal ribs of birds, in virtue of which they are enabled to meet their enormous respiratory wants. And this is another instance showing the conservative principles on which nature proceeds in all relating to mechanics, that here, instead of introducing some new and special mechanical expedient to convert an otherwise rigid framework into a freely movable machine, she merely retains so much of the sternal rib as will suffice; and as if further to show her economical tendency, the cartilages of the upper two ribs, where adaptive assistance is scarcely required, are in most instances quite rudimentary.

A SIMPLE OPERATION FOR VARICOCELE.

BY ARTHUR E. BARKER, F.R.C.S.ENG.,
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IN the last three cases of varicocele upon which I have been called to operate, the method adopted has been very simple, and has been followed by such good results that it appears worth brief notice. It seems, too, very unlikely to be followed by any of those ill results and dangers of which most surgeons have seen something who have practised the older procedures. I may say that the three operations now recorded were done by way of experiment. Some time previously I had removed the enlarged right half of the thyroid gland with strict Listerian antiseptics, using seventeen silk and six catgut ligatures for vessels, &c. The wound healed rapidly (almost by first intention), although after the first day I used a dressing of salicylic wool without the spray, the wound having become fully exposed during the first night. Here not one of either the catgut or silk ligatures came away or gave any evidence of their presence under the skin; nor have they done so yet, nearly a year after operation. In thinking over this case, it occurred to me that the scrotum, from its position and structure, would be a good field in which to study (as far as this is possible in the living body) the behaviour of such ligatures embedded in healthy tissues. If no suppuration took place around them, we might be able by manipulation to ascertain how long they remained unabsorbed, and how much plastic change they provoked, with some other interesting points. If, on the other hand, they should suppurate and come away sooner or later, the patient would be in no worse condition than if operated on by one of the ordinary methods where suppuration is necessary. I also thought that it would be interesting to try whether it was not possible in this ligation to attain to and maintain perfect asepticity without the usual elaborate dressings of the Listerian method. The operation of tying the veins of the testicle, in short, appeared to offer a simple but fairly good means of testing practically whether it was possible, without the spray, to introduce a perfectly pure ligature into the tissues of the body, and to maintain such conditions of purity around it as might enable the silk to remain there without provoking any excessive reaction; also of observing what became of the knotted ligature eventually in the soft textures of the scrotum.

Having these three cases to operate on last autumn, I dealt with them as follows: two on one day, the other five days later. The skin of the scrotum was thoroughly cleansed with a 5 per cent. carbolic lotion, as also all instruments and the surgeon's hands, no spray being used. The scrotum was then pinched up between finger and thumb in the usual way, so as to include the veins and exclude the vas deferens; it was then notched with a scalpel, and through the opening thus made a needle bearing a medium-sized twisted silk ligature (previously soaked for about an hour in the same carbolic solution) was passed. The veins were then allowed to slip backwards, and the needle was made to carry the silk forwards again through the same puncture, but this time in front of the veins. The latter were thus, of course, included in the two loops of silk leaving the scrotum by the same aperture. The ends of these were now tied tightly over the veins about one-eighth of an inch apart. They were then cut short and allowed to slip into the scrotal tissues. Everything was in the meantime protected from any contamination by frequent wiping with a carbolised sponge. A little padding of salicylated wool was the only dressing.

The results need only be briefly alluded to. There was a very trifling swelling around the seat of ligature for a few days, together with slight tenderness on pressure, otherwise nothing was complained of in the first two cases. In the third, considerable pain was felt for a day or two, and there was a little more swelling and tenderness. But in none of the three cases was there the slightest threatening of suppuration. The first left the house in ten days, the second within a fortnight, the last on the fourteenth day. They were then walking about without any discomfort, except the third, who, having had a very large varicocele, still felt a good deal of dragging in the loin on returning to his work, which was very hard, and some neuralgic pain. These, however, passed off later, under the use of laxatives for obstinate constipation from which he suffered, though he continued to work for long hours as a grocer's assistant. I watched all these three cases for several months, the last until quite recently, about a year after operation, and now regard all danger of the ligatures coming away as quite over. The latter could be felt under the finger as small knots deep in the scrotal tissues, which appeared quite normal. Whether they will ever come away remains to be seen, but this is immaterial, as far as the patient is concerned, for they give no trouble now.

Comparing these operations, as far as they go, with the older methods, their extreme simplicity is worth noting, as well as the small amount of trouble or inconvenience to the patient. It is also of some interest to note that, in these

three cases at all events, it was possible to manipulate freely with silk ligatures, and yet introduce them in a sufficiently pure state to produce no suppuration of any kind; and all this with only the simplest precautions as to absolute cleanliness, and without the carbolic spray. There is also a satisfaction in knowing that the veins are thoroughly occluded, and that there is no possibility of the ligatures slipping or being too soon absorbed, as might be the case with catgut. If nothing else, the operation appears an interesting experiment, and worthy of further trial.

Harley-street, W.

CASE OF STRUMOUS ULCERATION OF THE INTESTINES, PRESENTING THE CLINICAL FEATURES OF ACUTE GENERAL TUBERCULOSIS.

By SAMUEL WEST, M.B., &c.,

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DR. STURGES remarks in his article on Acute Tuberculosis in THE LANCET of September 16th, that "tubercular individuals, children at all events, will present the clinical symptoms of tubercular meningitis, and die in the usual way, but post mortem neither tubercle nor inflammatory exudation will be discovered." The following case is an illustration of this.

On August 17th a child, nine years of age, was brought to the Chest Hospital, Victoria-park, by its mother, who stated that though never strong, the child had been in its usual health until the last six weeks, when it became weak and languid; that for the last fourteen days it had been feverish, and had suffered from pain and sickness chiefly after food, and a little diarrhœa. There was no history of any previous illness. The child was thin and feverish, looked dull, and had an aspect which suggested typhoid fever. The pulse was rapid, 100–120; the temperature was high, with marked evening rise, 101·5° to 102·5°, the morning temperature being nearly normal. The child was listless, heavy, and slept much. The condition remained the same for some days. Diarrhœa, spots, and abdominal pain were absent, and the abdomen retracted. At the right apex the percussion was slightly impaired. The respiratory sounds were increased, especially the expiration sound, which was remarkably long and harsh, accompanied by occasional fine crepitation. The absence of abdominal symptoms and the presence of pulmonary signs led to the probable diagnosis of acute general tuberculosis, which was confirmed, it was thought, by the further course of the case. For the apex dulness increased slightly, some general bronchitis set in, and the patient rapidly lost flesh and strength; on the 6th of September—i.e., at the end of the fifth week of severe illness, and nine weeks from the commencement of failing health, the child, having for some days previously grown more and more drowsy, became suddenly unconscious, the eyes remaining wide open, the pupils equally dilated and not responding to light. There were continual slight twitchings of the feet and hands with irregular movement of the eyeballs; the respiration was noisy and harsh; the urine and fæces were passed unconsciously. For the next two days the temperature rose higher than usual, above 103°, the general condition remaining the same. On September 9th the temperature began gradually to fall, the twitching ceased, the pupils were observed to dilate and contract spontaneously, as in many cases of meningitis, and several loose motions were passed in bed unconsciously. On the 10th there was a slight return of twitching in the eyelids and arms, the respiration became embarrassed, and in the evening the patient died.

The history of the case, the retraction of the abdomen, the absence of diarrhœa, the presence of lung symptoms, and their gradual increase, and, lastly, the occurrence of unconsciousness, with slight convulsions, were all thought to point conclusively to the diagnosis of acute general tuberculosis. This diagnosis, however, the post-mortem examination did not establish. In no organ was there the slightest trace of grey tubercle. The apex of the right lung was indurated by some old pigmented fibrous tissue, but there was no recent mischief. The brain was absolutely healthy, except for the presence of a small cyst (a quarter of an inch in diameter) in the middle of the nucleus. This cyst had a firm fibrous capsule, with smooth lining, and round it the nerve substance was perfectly healthy; so that there was no sufficient explanation in the presence of the cyst for the sudden occurrence of unconsciousness. All the other organs were sound, except the intestines, which were in a most extreme condition of "tubercular" ulceration. In the whole cæcum round the valve, and for the lower six inches of the ileum, the mucous membrane was completely ulcerated away, and at frequent intervals in the small intestines large tubercular ulcers were found, many completely encircling the gut. The last ulcer, and that too of considerable size, was at a distance of only two feet from the duodenum; the character of the ulceration was typical of the so-called tubercular or strumous ulcers of the intestine, and the glands of the mesentery were also in the condition usual in this affection.

The uncertainty of diagnosis between many cases of acute general tuberculosis and typhoid fever is generally recognised, but this case is an instance of an intestinal lesion, not typhoid, which presented the same difficulties.

Wimpole street, W.

PURULENT DISEASE OF THE EAR;

PRODUCING CEREBRAL ABSCESS, PURULENT MENINGITIS, AND OBLITERATION OF THE RIGHT LATERAL SINUS, WITH STRIKING CHANGES IN THE INTERIOR OF THE TEMPORAL BONE.[1]

By THOS. BARR, M.D., F.F.P.S. GLAS.,

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W. C——, a boilermaker, aged thirty-seven years, was a remarkably strong man, of great muscular development and of medium height, weighing in ordinary health between fourteen and fifteen stones. He suffered from purulent disease of the right ear from the age of twelve till his death—that is, for twenty-five years. There was almost total deafness on the affected side. The disease was supposed to have originated in the blow of a cane received on the right side of the head, and inflicted by a schoolmaster by way of chastisement. This injury was followed by great pain, continuing for several weeks and culminating in the formation of an abscess which was opened behind the auricle. About the same time a discharge of matter appeared from the external auditory canal. The purulent discharge from the opening behind the ear continued, with variations in quantity, till six years ago, when the opening closed, leaving behind a depressed cicatrix. The discharge from the canal of the ear, which had usually an offensive odour, continued, with slight intermissions, till the patient's death. It was slighter, however, during the nine months before his fatal illness. He was liable during cold weather to attacks of hoarseness with sore-throat. At the age of seventeen he suffered from acute inflammatory attacks in the right ear, when it was supposed that his life was in danger. He noticed that when the discharge ceased for a short time he suffered from severe headache, and became very dull and fretful. Indulgence in alcoholic stimulants produced the same effects, and he was therefore very temperate in their use. In the middle of November last there began a series of morbid processes—first in the left ear, then in the right,—which in the course of three months terminated fatally by extension of the purulent inflammatory process to the interior of the cranium. The left ear, which previously had been always healthy, and in which he enjoyed good hearing, became at that time dull and discharged slightly without any distinct pain. This was associated at the beginning with sore-throat and hoarseness. The dulness and slight discharge in the left ear continued for two months, at the end of which an acute inflammatory process began in the ear. While at work on Monday, Jan. 23rd of this year, and particularly on his way home at the end of the day, he experienced great giddiness, so that at times he staggered in walking. On the following morning at four o'clock he awoke with severe pain in the head, with great giddiness, and he looked

[1] I am indebted to my friend Dr. McConville, the medical attendant of this patient, for the chief facts given in the clinical history.

deadly pale. Dr. McConville was sent for in the forenoon, when he found the patient "suffering from great pain on both sides of the head, but chiefly on the left side. The left auricle projected abnormally from the side of the head, and the meatus was almost closed by swelling of its walls. There was a general feeling of uneasiness and tenderness in the temporal and mastoid regions. The cervical glands immediately behind the lobule were much swollen and painful." The deafness on the left side was now almost as complete as on the right, and only the shrill voice of a female friend exerted at its highest pitch close to the left ear could be heard by the patient. Dr. McConville then, for the first time, examined the right ear. He found over the upper part of the mastoid region, a little distance behind and above the auricle, a depressed cicatrix adhering to the subjacent bone. The canal of the ear was filled with pus, and on its removal by syringing with warm water a few granulations were seen at the inner end of the canal. There was some bronchitis and pharyngeal catarrh, along with febrile disturbance and thickly coated tongue.

The treatment carried out by Dr. McConville consisted in the local abstraction of blood by leeches applied in front of and below the left auricle, in the use of poppyhead fomentations and hot linseed-meal poultices to both sides of the head, and in the use of a gargle of chlorate of potash. The general treatment included catharsis by jalap and calomel, followed by the use of a mixture containing iodide of potassium, chloride of ammonia, and an anodyne for the cough. After a few days a large cantharides plaster was applied to the back of the head, from ear to ear, with apparently considerable relief to the pain and the giddiness. The man's condition seemed to improve. After a few days the painful symptoms passed off, and the hearing was partially regained in the left ear. This improvement continued, exciting lively hopes of recovery, which were, however, changed to bitter disappointment, for in the course of another week grave and ominous symptoms appeared.

On Saturday evening, twelve days after the first attack of giddiness, the patient experienced a sense of chilliness; pain was complained of, not on the left, but on the right side, the seat of the old purulent disease. Dr. McConville then ordered forty grains of bromide of potassium and ten grains of chloral to be taken night and morning. The next morning the man felt so well that he proposed to take a walk in the West-end park; but to this the doctor distinctly objected as a possibly dangerous exposure to cold. That evening he had another chill. From this day the symptoms became most grave, and indicated serious mischief in the interior of the cranium. The pain in the head—chiefly in the front—became daily more intense. Nights were passed in agony, which anodynes, externally and internally applied, only partially mitigated. The patient was seized with repeated rigors. In these rigors the arms and legs shook violently. These rigors or shakings soon took the character of epileptiform convulsions.

I was asked by Dr. McConville to see the patient on Wednesday, Feb. 15th, seven days before his death. The man then lay in a stupor, but was capable of being roused; there was extreme deafness, loud shouting into the left ear being necessary before he heard and understood. I asked him about the pain in the head. He answered, slowly prolonging the word, "excruciating." I found no tenderness in the right ear, or in its neighbourhood. The orifice behind the ear was now open, and fluid injected into the opening passed quickly and freely through the canal of the ear. The current could also be forced as easily in the opposite direction. Disinfecting fluids were afterwards regularly and frequently forced through the ear by this means. It was apparent, however, that the mischief was in the interior of the cranium, and a cerebral abscess was diagnosed. Up till four days of his death he was able at times to get out of bed, and even to walk from the room to the kitchen. Four days before death he was seized with paralysis of the left arm and leg and right side of the face. For two days before death he was quite comatose. He died on the evening of Wednesday, February the 22nd, about a month after he left his work and sixteen days after the more definite brain symptoms set in.

The autopsy was made by Dr. James Alexander Adams, twenty-four hours after death. Under the calvaria the veins of the dura mater were seen to be torpid. On clipping away the exposed dura mater the middle part of the upper surface of the right cerebral hemisphere presented a slightly bulging appearance, but the surfaces of the hemispheres appeared to be otherwise normal. At this stage of the examination no unusual odour was apparent from the intra-cranial contents, but while removing the brain from the base of the skull, when the right temporal lobe was raised from the middle fossa of the skull an extremely disagreeable fetid odour was suddenly experienced. A small quantity of purulent matter was at the same time seen on the floor of the middle fossa of the right side. The brain being placed with its base upwards, the lower surface of the right temporal lobe corresponding with the upper surface of the petrous part of the temporal bone was seen to be dark in colour and very soft to the touch, but having no apertures in its substance. On cutting into the temporal lobe at this part, however, a thin brownish fluid, emitting a most offensive smell, poured out in considerable quantity; and on making further sections, the lateral ventricle and a great part of the interior of the right cerebral hemisphere seemed to be occupied by this fluid. There was no distinct boundary wall or membrane enclosing this collection of fluid, but the substance of the brain around seemed in a softened, at some parts even gangrenous, condition. The temporal bones were removed for careful examination. Right temporal bone: The dura mater covering the upper surface of the petrous part of the bone was swollen, soft, and pulpy, and was perforated by two small apertures. The portion of dura mater covering the roof of the antrum mastoideum was more thickened than elsewhere. The bone beneath was dark coloured and eroded; at one part it was perforated by a considerable carious opening communicating with the antrum mastoideum. After a time the colour of the bone changed, and instead of being dark, it assumed a bleached and white appearance. Behind, the dura mater covering the concavity for the lateral sinus, and forming the walls of that sinus, was extremely thickened and converted into a fleshy mass. The lumen of the lateral sinus was completely obliterated by thickening of its walls and by fibrous adhesions of its inner coats. Some purulent matter was found infiltrated between this thickened mass and the bone forming the inner wall of the antrum mastoideum. This osseous wall was found to be very thin, very much eroded on its inner surface, and perforated at one part by an opening leading to the antrum mastoideum. On the outer surface of the mastoid process just behind the root of the zygoma, and about ten millimetres above and behind the external orifice of the osseous part of the canal of the ear, there was an opening in the bone four millimetres in diameter, which communicated at a distance of five millimetres with the antrum mastoideum. The bone, perforated by this channel, was dense and hard as ivory. On examining the osseous part of the external auditory canal, the posterior wall was found extremely thinned and perforated by three small apertures. This extremely thin perforated plate of bone formed a partition between the external auditory canal and the dilated antrum mastoideum. At the inner end of this posterior wall there was a large semilunar gap, with

FIG. 1.

The outer part of the section of the right temporal bone. *a*, Outer part of the dilated antrum mastoideum, showing the three openings communicating with the external auditory canal, and one communicating with the interior of the cranium. *b*, The dense compact tissue into which the mastoid cells are converted. *c*, Section of inner end of external auditory canal. *d*, Inner end of canal passing to the outer surface of the mastoid process. *e*, Dura mater.

the convexity outwards, which passed into the antrum mastoideum. A vertical antero-posterior section through the middle ear exposed a very unusual condition of the tympanum and mastoid cells. The whole of the normal contents of the tympanum were gone; there was not a vestige of the tympanic membrane or ossicular chain remaining. There was complete osseous closure of the fenestra ovalis. The fenestra rotunda, however, still remained. The promontory and floor of the tympanum were covered with soft granulation tissue. A white nipple-shaped hyperostotic growth, with two or three vertical grooves, occupied the position of the outer and inferior semicircular canals. Above that an excavation extended inwards nearly as far as the posterior surface of the petrous bone. The bone forming the floor of the tympanum was enormously thickened (twelve millimetres in thickness), and very dense. The mastoid cells had undergone a remarkable change. The antrum mastoideum was immensely dilated, forming a cavity two and a half centimetres long from within outwards, and nearly two centimetres from the back wall of the external auditory canal to the thin cortical layer separating the antrum from the groove for the lateral sinus, while it measured in height more than one centimetre and a half. The outer wall of this cavity was smooth and white, while the inner one was lined with granulation tissue. The mastoid cells proper were sclerosed and completely obliterated, and, instead of large numbers of air-filled spaces, as in the normal condition, I found extremely hard, dense,

FIG. 2.

The inner half of the section of the right temporal bone. *a*, Inner part of the dilated antrum mastoideum. *b*, The dense compact tissue into which the mastoid cells are converted. *c*, Cavity of the tympanum. *d*, Dura mater. *e*, Inner wall of osseous part of Eustachian tube.

ivory-looking bone, through which I had great difficulty in working the saw. The two cavities, the tympanum and the greatly dilated antrum mastoideum, were filled with thick curdy matter, having a most fetid odour. Left temporal bone: The dura mater over the petrous part was normal. The osseous roof of the middle ear was also apparently free from pathological change. On examining the tympanic membrane I found a small round perforation, about two millimetres in diameter, in the posterior part of the membrana flaccida. This opening was partially closed by granulation tissue. On removing the roof of the middle ear I saw that the head of the malleus and the body of the incus were gone, and that the opening in the membrane communicated with the antrum mastoideum. The latter cavity was filled with muco-purulent fluid. The osseous layer forming the floor of the tympanic cavity was only about two millimetres in thickness, markedly contrasting with the right side, where the floor of the tympanum measured twelve millimetres in depth.

Remarks.—In this single case we have an illustration in the right side of almost all the various consequences, both to the ear itself and to the interior of the cranium, following upon chronic purulent disease of the middle ear. The changes produced in the ear itself were: (1) Total loss of the tympanic membrane and ossicular chain; (2) osseous closure of the fenestra ovalis; (3) great dilatation of the cavities of the tympanum and antrum mastoideum; (4) conversion of the cellular structure of the mastoid cells into dense tissue of almost ivory consistence; (5) the formation of six carious apertures opening into the dilated antrum mastoideum—namely, two communicating with the interior of the cranium, one perforating the outer wall of the mastoid process, and three passing into the external auditory canal. The changes produced by extension of the disease to the interior of the cranium were also very remarkable. The brain, the dura mater, and the lateral sinus were all three involved in serious morbid changes, including cerebral abscess, purulent meningitis, and changes in the lateral sinus producing closure of that channel. We have thus represented in this case all the morbid processes known to be the chief modes in which disease of the ear leads to a fatal issue. It is undoubtedly very rare to find the whole three present in the case of one patient. The condition of the lateral sinus is probably the most striking and interesting feature in this case. No doubt some degree of phlebitis of the lateral sinus is a not unfrequent complication of purulent disease of the middle ear. The mischief is, however, probably in most cases limited to some thickening of the walls of the sinus, and to a consequent diminution of its lumen. In regard to the frequency of the implication of the sinuses of the brain, Wreden gives as his experience that 14 per cent. of purulent ear disease are complicated by thrombosis of the sinuses of the interior of the cranium, while Dusch found that out of thirty-two cases of thrombosis of these sinuses twenty originated in purulent disease of the ear. Of the venous sinuses of the brain the lateral is much the most exposed to injurious influences from the ear. This is due to its anatomical connexion with the mastoid cells. In the deep concavity of the groove for the lateral sinus only a thin osseous partition separates the mastoid cells from the walls of the sinus. This partition is always perforated by openings for the passage of connective tissue, vessels, and nerves. Besides, it is not only frequently so thin as to be transparent, but it is no very uncommon thing to find it containing small gaps, in which case the mucous lining of the middle ear and the wall of the sinus are in direct contact. In the case before us the state of this osseous partition, eroded and perforated by carious disease, affords a ready explanation of the mode of extension of the disease in the ear to the walls of the lateral sinus. But without such disease of the bone the simple juxtaposition of the lateral sinus with the ear is in suppurative disease a source of great danger. All surgeons know that phlebitis and thrombosis are very apt to form in the vessels of a tissue which is the seat of purulent inflammation. When therefore, as is frequently the case, the lining of the mastoid cells is chronically inflamed, softened, or eroded, and when these cells are filled with decomposing purulent matter, emanating gases of putrefaction, is it surprising that phlebitis and thrombosis with their effects should be set up in this large venous trunk, so closely contiguous to and so connected by bloodvessels with the diseased part? More frequent extension of disease in the middle ear to the lateral sinus would take place but for two obstacles opposed by nature to such extension. First, the natural power of resistance presented by the strong tissue of the dura mater, which forms the walls of the sinus, even when this dura mater is in actual contact with a diseased part. In such circumstances the walls of the sinus may become merely thickened without further mischief. For example, necrosed and carious bone has been found in contact with the walls of the lateral sinus, without more mischief than some thickening of the walls of the latter. Secondly, the thickened lining membrane of the middle ear, together with the thickened osseous walls of the latter, circumscribes the morbid process in the ear and frequently forms an important barrier erected by nature against the invasion of this great venous channel of the brain by the disease in the ear. This case is one more added to the large record, which the literature of this subject presents, of fatal results arising out of old and neglected purulent disease of the ear. It is to be feared that, in spite of this dismal record, chronic purulent disease of the middle ear, frequently manifesting itself by the single symptom of a discharge from the ear, is still viewed in too many cases with indifference by the profession as well as by the public.

Albany-place, Glasgow.

AT the Worship-street Police Court last week a manufacturer of German sausages in the East-end of London was fined £20, with costs, for using horseflesh, some of it in a state of decomposition, in the composition of the articles of food vended by him.

FATAL CASE OF ACUTE LOCAL ENTERITIS OF UNDETERMINED CAUSE.

By HENRY S. GABBETT, M.D., M.R.C.P.,
MEDICAL REGISTRAR TO THE LONDON HOSPITAL, ASSISTANT-PHYSICIAN TO THE ROYAL CHEST HOSPITAL.

L. B——, a porter at the Royal Chest Hospital, aged forty-three, was suddenly seized with violent abdominal pain on the morning of April 21st. He was a married man with several children. He had always enjoyed robust health, but there was reason to believe that he was intemperate in the use of alcohol. On the morning above mentioned he was called for early at his own house, got up, opened the street door, and on returning to his room was attacked with colicky pains, soon succeeded by vomiting. Dr. Burgess, the resident medical officer of the hospital, was called to see him, and found him suffering from paroxysmal pain referred to a spot midway between the umbilicus and the pubes. I am indebted to Dr. Burgess for notes of the patient's condition at this time. From them I learn that the man complained of constant distress in the region described, aggravated every two or three minutes until it became so severe as to cause him to cry out and to double himself up with pain. The bladder was not distended; there had been no motion from the bowel on that day. He vomited whenever he took food. There was no history of previous constipation, and his last meal had been a simple one of meat for supper on the evening preceding his illness. He was given a draught containing castor oil and laudanum, which (according to his wife's statement) moved his bowels very slightly a short time after its administration. The symptoms continued unchanged during the day. He frequently vomited, and suffered from tenesmus. He passed a very restless night. On the following morning, April 22nd, I was asked by Dr. Burgess to see the patient. I found him lying on his back in bed, his knees not drawn up; his face rather pinched, and wearing an expression of anxiety; his pulse small and fast, about 110; his temperature 99·5°. His tongue was slightly dry, but not furred; he complained of thirst; and during my visit he retched ineffectually two or three times. The abdomen was moderately distended; there was no general tenderness, but pressure in the hypogastric region, a little to the right of the median line, caused pain. There had been no motion from the bowels since that mentioned above; the secretion of urine was very scanty. Two attacks of colicky pain occurred in my presence; they came on rather rapidly, the recti muscles contracted strongly, and the patient tried to bend himself forward, making exclamations indicative of distress. For many reasons it was considered advisable to remove him to the hospital; he did not seem to suffer from the journey, which was a short one. After his admission, the application of hot fomentations with laudanum seemed to give relief to the abdominal pain; the vomiting became less frequent, the vomit consisting of small quantities of green, bilious fluid. The urine was examined, and found to be highly concentrated and to contain a trace of albumen. It was considered probable that the case was one of acute intestinal obstruction. The seat of obstruction could not be ascertained; there was certainly no external hernia; there was no passage of blood from the bowel; digital examination of the rectum gave negative results. Enemata were given without any effect, but the patient asserted that he passed flatus after them and obtained some relief thereby. He was now ordered frequent doses of belladonna. I saw him again at 2 P.M., and found him certainly more comfortable, complaining but little of any pain, and vomiting very seldom; but he hiccoughed occasionally, was thirsty, and his pulse was, if anything, worse than in the morning. He was able to swallow and retain concentrated nourishment. There had been no motion of the bowels, and no desire to evacuate on the part of the patient. Dr. Gilbart Smith was kind enough to see him with me at 5 P.M., and gave a very gloomy prognosis. At this time, although the man considered himself better, his pulse was exceedingly rapid and shaky, his breathing thoracic, and his abdomen more tumid than before. The previous treatment was continued by Dr. Gilbart Smith's advice—that is, nourishment and stimulants in small repeated doses, belladonna, and opium if necessary, to relieve pain. I visited the patient for the last time that evening at 10. There was then no obvious change in his condition; he was perspiring freely, the temperature had never reached 100°; his mind was clear; he vomited a little bilious fluid at long intervals, and complained of some general abdominal pain, which was not at all severe. It was noted, however, as an unfavourable prognostic, that there was a tendency to jactitation, and that the pulse had by no means improved. I am informed by the resident medical officer that the patient was very restless during the night, that during the early hours of the morning he showed some signs of incipient delirium, and that at 7 A.M. he suddenly sat up, tried to get out of bed, and almost immediately fell back and died, brownish-yellow fluid pouring in large quantities from his mouth. Up to this the vomit had been throughout merely bilious. Death occurred forty-eighty hours after the commencement of the illness.

The post-mortem examination was made by Dr. Burgess, assisted by Dr. Gilbart Smith and myself, twenty-six hours after death. On opening the abdomen we found evidences of general peritonitis; flakes of lymph covered the intestines, the coils of which were reddened, especially at their points of contact; and the abdominal cavity contained several ounces of turbid yellow fluid. Great care was taken to avoid disturbing the position of the viscera whilst a general inspection was being made. There was no band, twist, intussusception, or internal hernia. Attention was immediately attracted by the appearance of a piece of intestine, about three inches long, lying in the middle line of the hypogastric region; it was intensely congested, of a uniform deep-red colour, and contrasted strongly with the neighbouring coils. It was found to be a portion of the ileum, nearly two feet distant from the ileo-cæcal valve. There was no such sharply defined line of demarcation either above or below the coil as is observed in cases of strangulation, but the deep-red colour shaded off very rapidly on both sides. The portion of mesentery belonging to the coil contained between its layers an oblong dark-purple mass. The ileum above this congested piece, the jejunum, duodenum, and stomach were all greatly distended, and filled with brownish-yellow liquid without fæcal odour. No perforation was discovered. The last two feet of the ileum contained a thick pasty material; this part was neither much dilated nor contracted. The cæcum and first part of the colon contained yellow fæces in considerable quantity; the sigmoid flexure and rectum were empty. Examination of the intestinal mucous membrane showed no evidence of diffuse enteritis; but in the intensely inflamed coil of ileum the mucous membrane was swollen and covered with sticky mucus. No part of the canal contained blood. The purple mass in the mesentery proved to consist of lymphatic glands with hæmorrhage in their substance and around them; other glands in the immediate neighbourhood were enlarged and so soft as to be absolutely diffluent. The mass in the mesentery was about an inch and a half long, and communicated by means of a thin line of effused blood with a very small extravasation beneath the mucous membrane. A microscopic examination of parts of the glands and of the inflamed bowel revealed nothing further than had been ascertained by the naked eye. The mesenteric vessels appeared healthy, and there was no sign of embolism. The liver was soft and fatty. There was a small cyst in the left kidney. The heart was healthy; the left ventricle firmly contracted. There was acute diaphragmatic pleurisy on the right side. No other morbid appearances were observed.

Remarks.—It appears almost certain from a review of the clinical history and the post-mortem appearances that this was a case of local damage to the intestine, giving rise to local enteritis at first, then to obstruction from paralysis of the muscular coat, and finally to general peritonitis. It is difficult, if not impossible, to ascertain the nature of the original lesion. During life it was considered possible that there had been some accidental twist of the bowel, or that a knuckle had been suddenly constricted by a band or otherwise, or that an intussusception had occurred. Some such injury was supposed to have happened, because of the nature of the symptoms and their mode of onset after the patient had suddenly risen from bed. The theory of an intussusception was rendered to some extent improbable by the absence of physical signs and by the fact that no blood was passed per rectum; but that something of the nature of an accident did occur appeared, and still appears,

in the highest degree probable. What could this accident have been, regarding the matter in the light of the post-mortem appearances? If it was a twist or an intussusception, then the bowel must have recovered its original shape after the lesion had set up the inflammation which terminated in death. But even supposing the possibility of such recovery, would there not have been more definite appearances in the mucous and serous membranes to indicate the accident? On the whole, I feel unable to suggest any explanation of the phenomena; the only thing which at the time seemed to give a clue (and that by no means a satisfactory one) was the discovery of a hæmorrhage between the layers of the mesentery adjoining the inflamed piece of bowel. Whether this can have been the primary accident is a question which I cannot attempt to determine; but it is interesting to note that there have been recorded cases of mesenteric hæmorrhage discovered post mortem, in which no other cause was found for the fatal event. (See report of meeting of the Medical Society, December 5th, 1881, THE LANCET, December 31st.) The immediate cause for the somewhat remarkably sudden death in the present case was in all probability acute distension of the stomach by upward overflow of the contents of the small intestine. Up to the moment before death the vomit was simply bilious; at the moment of death, yellow fluid poured in quantities from the mouth; after death the stomach and upper part of the intestines were found uniformly distended with the same fluid.

Upper Bedford-place, W.C.

ON THE

IMPORTANCE OF CONTINUOUS EXTENSION AFTER TENOTOMY IN CASES OF CONGENITAL TALIPES, WITH TARSAL DEFORMITY.

BY FREDERICK CHURCHILL, M.B., &c.,
SURGEON TO THE VICTORIA HOSPITAL FOR CHILDREN.

HAVING had "a run" of these cases of late in my hospital practice, a brief record of the line of treatment adopted will perhaps tend to elucidate some of the difficulties experienced in obtaining permanent good results after division of tendons. Not only is it necessary that the distorted limb be placed in its rightful position by the division of parts, whether tendon or fascia, that hinder by abnormal contraction the extension of the foot, but far more important is the maintenance of the limb by continuous extension in that exact position which it is intended ultimately to assume. By forcible manipulation under chloroform many of the fibrous bands and interossei ligaments which had helped to keep the limb in a wrong position can be stretched or divided, and the astragalus brought up to its normal position under the articulating surface of the tibia. Care, of course, must be taken so to manipulate the bones as to preserve the double arch of the tarsus. I am not one of those who think we can effect much without the division of tendons, nor do I place much faith in Scarpa's shoe as a means for counter-extension. It is fortunate that with better educational advantages and improved means of transit, parents are finding their way to hospital at an earlier period than formerly. The district surgeons, too, though well able in many cases to perform these operations, are finding out the advantage of early treatment, and the benefit to be derived from sending their patients to hospital towns, where skilful and patient continuous nursing as an adjunct to special surgical treatment is now valued and appreciated. I cannot too strongly protest against the folly of depending upon complicated and expensive mechanical appliances which fail to keep up continuous extension, though designed for that purpose. By adding weight to the already impoverished limb they rather increase than diminish the deformity. To see the children parading the streets, their limbs encased in iron, with the idea that in some unexplained way the distorted limb will come straight, is only equalled by the credulity of the mother who, when told that iron was good for a rickety child, ordered its limbs to be encased like an ironclad, with a sailor suit to match. When the deformity has become so marked that the child is accustoming itself to walk upon the sides, instead of the soles, of the feet, the joint surfaces have been so moulded by the altered position of the foot, and the tendons have become so rigidly contracted within their sheaths, that to rectify such malposition needs great care and assiduous treatment by continual pressure in the direction required to rectify the deformity. It cannot be supposed that any instrument maker, however large may be his experience, and however skilful he may be in the manufacture and adjustment of appliances, can be so acquainted with the physiological processes of repair and methods of accommodation during the period of growth as to be able to arrange for all the little niceties needful for keeping up continuous extension. As a fact, the parents too often live within a charmed circle of their own ignorance. Scarpa's shoe, with all its screws and straps, and purchased at a somewhat prohibitory price to many, presupposes to the uninitiated a guarantee of its hidden powers for self-adjustment.

As regards division of tendons, I find that the tendo Achillis requires division in the great majority of varus deformities, simply because the gastrocnemius pulls the foot inwards as well as backwards during the flexion of the foot. The broad insertion of the tendon into the os calcis and the solid sheath encasing it permits of free division without absolute separation of all the attachments. By careful bandaging of the foot and leg the leverage obtained by the extensor muscles is to a great extent restored. As soon as all muscular impediment to the rectification of the foot is removed, there remains a considerable amount of distortion from the paralysed state of the extensor muscles. To obviate this I carefully apply a plaster-of-Paris bandage over a flannel "protective," bringing the foot up into its proper position by very firm manipulation, and keeping up this extension until the bandage has "set." By this means I succeed in procuring rigidity of appliance together with liberty for muscular effort. By galvanism and friction of the extensor muscles the tendons contract, and after three or four renewals of the plaster-of-Paris encasement the foot generally regains its normal position during the process of growth and development. Occasionally I fit a piece of webbing round the metatarsal bones and attach to the outside of it a length of solid elastic. The proximal end of this may be passed through a clip fixed to a garter below the knee. Continuous extension will in this way effect considerable rectification of the distorted parts. It will often be found useful with older children who are able to walk, and who have not such pliable and easily-moulded feet as young infants. I generally persevere for months with the treatment, and seldom require any mechanical appliance, not even in those extreme cases where the astragalus almost touches the ground.

Cranley-gardens, S.W.

FATAL CASE OF POISONING BY ERGOT OF RYE.

BY A. DAVIDSON, M.B., &c.

ON Saturday, June 3rd, about 4 P.M., I was called to see M. M——, aged twenty-eight, lately a hospital nurse. She was said to have "burst" a bloodvessel. On entering her room I observed a basin of reddish-brown pultaceous matter, said to have been vomited by the patient about 8 A.M. I was informed she had vomited something like it a few days previously, and, complaining of lumbar and arthritic pains, had expressed a fear that she was going to have rheumatic fever. Late on the previous evening she had passed a very hard motion, and a quantity of urine which looked like blood. About the same time, also, she had vomited half a pint of blood. During the evening and morning she gradually became worse.

On my arrival the face, eyes, neck, and upper portion of chest were intensely jaundiced. The intensity of the jaundice diminished from above downwards, till at last it disappeared altogether. She had a pair of genuine "black eyes." The rest of the body had a natural appearance. The expression was anxious, and the general condition maudlin. Occasionally fits of stupor and of apathy ensued. There was no alcoholic odour, but during the evening a distinct etherish smell could be perceived. The lips were slightly swollen, and covered with dry black blood. The tongue was also slightly swollen, dry black blood covering

the base and middle, whilst the edges and tip seemed of darker hue than natural, although moist. She lay chiefly upon her right side. The skin was pale and cold, but, although the thermometer only registered 96° in the axilla, the temperature there seemed about normal. The pulse was most peculiar. It seemed to indicate its presence to the finger, and disappeared before I could judge of its character; counting it was impossible. The respiration was noisy and laboured, and 48 per minute. Thirst intense; appetite gone. She swallowed with ease. The bowels had not acted since the preceding night, nor had she passed any urine. There was decidedly harsher breathing at the base of the right lung than elsewhere. The action of the heart was as peculiar as the condition of the pulse. The area and force of the cardiac pulsation were both increased, whilst the impulse against the chest walls was of a distinctly rolling character. I carefully counted the rate, and found that 150 cardiac cycles were completed in a minute. The sex, age, appearance of patient, and of vomit, immediately suggesting not only poisoning but a motive, I examined the breasts and found milk in them.

The patient volunteered no information, but, on being questioned, admitted having taken "two handfuls" of ergot, and also that this had been going on for several months. Subsequent events and the post-mortem examination showed that she had been taking the liquid extract for several months, and had quite recently taken two handfuls of the powder, not infused. The case seemed utterly hopeless; the exhaustion, hæmorrhage, and chronicity forbade the use of either stomach-pump or an emetic; and antidotes seemed equally useless, so I reported the matter to the police.

For my own protection I decided to call in Dr. Carter, a neighbouring consulting physician. Before I left a distinct uterine contraction occurred. The consultant recommended liquor chlori as an antidote, and it was decided to accelerate labour as a possible means of discharging the force of the poison through an active uterus. At 7.30 I introduced a No. 8 bougie-à-boule with great ease, but had to reintroduce it at 8.30, as she had removed it in one of her many paroxysms. At 9.15 the os uteri admitted one finger, so I introduced Barnes's smallest bag. I did so with ease; and twenty minutes later, finding the os less firmly encircling the bag, I removed it, and the membranes immediately followed. I ruptured them, and the head having presented, with little difficulty seized a foot. (Shortly before this brandy was given, but for the first and last time it regurgitated through the nose.) Whilst attempting to bring down the foot the breathing became easier and slower, until, just as I was about to deliver, it ceased altogether. Shortly before death the respiration was 56 per minute, and from 6 P.M. the pulse could not be felt at all. The stupor had gradually deepened, but every now and then paroxysmal movements would occur whilst the patient would sit up in bed. She understood what I said to her occasionally, and was always obedient.

Thirty-two hours after death I made a post-mortem examination. The body presented much the same appearance as during life, save for the welling out from the mouth and nose of a greyish-black and gritty matter, which was very fluid. The body was well nourished. Greenish streaks were becoming visible on the abdomen. Cadaveric rigidity was passing off. The brain was remarkably firm, and perfectly free from hæmorrhage. None of its membranes seemed diseased, although it appeared rather looser in the cranial cavity than natural. The temporal artery bled profusely in making the preliminary incision through the scalp. In opening the abdominal and thoracic cavities an enormous quantity of fat was exposed, and embedded in it could be observed innumerable small hæmorrhages. The peritoneum was also covered with these hæmorrhages, and the bowels were everywhere in the same condition, besides being extensively bound down by adhesions. The abdominal cavity contained a very large amount of blood, and this rendered the detection of ascitic fluid impossible. No large vessel was ruptured so far as could be seen, the hæmorrhage being seemingly the result of an enormous number of small vessels having ruptured. The blood was fluid. The diaphragm was arched. The liver did not seem altered in size, but on section it was dry, bloodless, waxy-looking, and of a slightly dirty yellow colour. It was easily lacerable. The spleen seemed rather smaller than usual, and, on section, blood of a dirty red colour oozed copiously from it. The kidneys were enlarged, pale, and waxy-looking, and their capsules easily separable. The stomach exhibited ruptured vessels in its walls, and contained a considerable quantity of the same fluid as came from the mouth and nose. The bowels were in the same condition. The bladder was quite empty. The uterus was about the size of an adult head. Its walls were stained all over with dark effusions, and on opening its cavity a fœtus of about five months became visible. There was neither liquor amnii nor blood in the uterine cavity. On removing the ribs the pleura was found non-adherent, but the lungs presented a remarkable appearance. They were rather anæmic, and this gave them a steel-grey appearance. On this as a ground were scattered innumerable irregular dots of the size of a small pea. These were hæmorrhages. The right lung was especially congested at its base. The heart was enlarged, having a large quantity of fat on its anterior wall and sides externally, but the valves were healthy. Its cavities were practically empty.

Brighton.

A CASE OF

MORPHIA POISONING BY HYPODERMIC INJECTION; RECOVERY.

BY PHILIP E. HILL, M.R.C.S.,
SURGEON TO THE CRICKHOWELL DISPENSARY.

EDWARD C——, a gardener, aged forty-eight, was admitted as a patient of the Crickhowell Dispensary on the 1st of August, suffering from mitral valvular disease with ascites. He had for some time past been under treatment, and for several days complained of severe abdominal pains, for the relief of which chloral hydrate alone and in combination with bromide of potassium had been tried, with little or no benefit.

On my visiting him at 11.30 on the morning of the above date, I found him in great agony, in which condition his wife informed me he had been during the greater part of the previous night. He implored me to do something for his relief, saying he could endure the suffering no longer; and as I happend to have my hypodermic syringe in my pocket, I introduced into his arm four minims of a solution of acetate of morphia (strength one grain in twelve minims). I then left him.

About 4.30 P.M. I received a message from his wife informing me that her husband was still asleep and snoring, and that she could not awake him. I at once started for his house, and found him, to my astonishment, in a condition of deep coma, from which I was unable to rouse him. The face presented a ghastly hue; the lower jaw had fallen; the lips were livid; the eyelids were open, the pupils contracted to a pin's point and perfectly insensible to the stimulus of light; the extremities were cold, and the surface of the body bathed in a cold sweat. Respiration was laboured, slow, and stertorous, but the pulse remained unaffected.

I immediately tried to rouse my patient by artificial respiration, flagellation with a wet towel over the face and chest, mustard applied to the nape of the neck and calves of the legs, with turpentine over the cardiac region, and, failing to administer coffee into the stomach from his inability to swallow, injected a strong solution of it into the rectum. Hot water bottles were also applied to his feet and body. These remedies were persevered in for some hours, when, to my gratification, consciousness gradually returned.

My friend Mr. Evan Parry, for whom I had sent, now fortunately arrived—for by this time I was getting exhausted from the combined effects of anxiety and my efforts to restore animation—and assisted me in carrying out the treatment. Our patient was particularly anxious to be left alone and allowed to sleep; but our efforts were unremittingly persevered in until 2 A.M., by which time the pupils had become almost natural, and the strong desire for sleep passed away. On my visiting him at 10 A.M. on Aug. 2nd he had completely recovered from the effects of the morphia, and was in no way the worse for its administration.

Remarks.—From the appearance of the patient when first seen I could only arrive at an unfavourable prognosis, which was concurred in by Mr. Parry on his arrival, but I cannot understand how such a dose as one-third of a grain of morphia, even when administered subcutaneously, and that after other sedatives had been tried without effect and time allowed for their elimination, should have given rise to such alarmingly poisonous results, for one would have

imagined that the great pain which was present would to some extent have resisted the influence of the drug. Was the exalted action of the salt due to the cardiac mischief, or might it not be more properly attributed to the idiosyncrasy of the patient, especially as the heart's action was in no way seriously interfered with? I can vouch for the accuracy of the strength of the solution, as it was the same I have always employed, and within the last month injected eight minims of it in divided doses, with an interval of four hours, into the arm of a gentleman suffering from persistent vomiting.

I cannot conclude this imperfect report without gratefully acknowledging the kind co-operation of Mr. Parry during this, to me, particularly distressing and anxious case.

Crickhowell.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

TWO CASES OF CANCER OF THE RECTUM.

(Under the care of Mr. BRYANT.)

CASE 1. *Excision of Rectum for Cancer; Severe Suppuration; Erysipelas; Relief.* (From notes taken by Mr. Manley.)—Sarah H——, aged forty, was admitted on Nov. 26th, 1881, into Lydia ward. She was married, and had had nine children, the youngest of which was eighteen months old. Her labours had always been troublesome. Four years before admission she first noticed that she passed a little blood per rectum, and her bowel came down, but was replaced, and caused her no further trouble. During her last labour (an unusually severe one) she again passed blood from the rectum, and her bowel again came down. It was returned, but she felt a constant desire to pass motions, and these, when passed, were mingled with froth, slime, and blood. From that time she constantly had the same trouble with her rectum, and had alternate periods of relaxed bowels and constipation.

On Nov. 29th, under chloroform, she was examined. The finger could be passed beyond a zone of ulceration in the rectum. The posterior wall of the vagina was puckered and evidently infiltrated. It was decided to excise the rectum, and the patient was accordingly carried to the theatre. She was placed in the lithotomy position, when a small carcinomatous outgrowth protruded from the rectum. The vagina was examined by a speculum, but no definite disease was made out. An incision was made from the anus backwards in the median line for about an inch. The finger was introduced into the wound and passed round so as to completely isolate the rectum. The tissue between the rectum and vagina was then divided with scissors. The transverse perineal arteries were divided and twisted. Two lateral cuts were then made in the wall of the vagina dividing the mucous membrane and connective tissue; two arteries were ligatured. The posterior wall of the vagina was then divided with the scissors about an inch up and left in connexion with the diseased bowel. The diseased mass being completely isolated, the healthy bowel was fastened with ligatures all round. The scissors were then introduced into the rectum, and the wall of the bowel divided through the growth. On commencing to divide the diseased portion from the healthy part, the middle hæmorrhoidal artery was divided and ligatured. The growth was then completely removed without further hæmorrhage. The posterior incision was united by three sutures. The rectum was then sewn to the perineum, and in front to the corner of the vaginal flap made at the commencement of the operation. About half the divided sphincter was left. A drainage-tube was inserted between the rectum and vagina. The piece of bowel removed was about an inch and a half long, and much thickened. The inner surface was wholly infiltrated and fissured.

The patient was easier after the operation, but on the early morning of Dec. 1st she was wandering and irrational. The wound was, however, doing well. Next day the skin was hot and moist; there was a bright flush on either cheek. Tongue furred, but moist; pulse quick and soft.

On Dec. 5th the urine was slightly albuminous, breath fetid; and on the 13th an abscess to the left of the coccyx was opened. Next day the left buttock was swollen and red. A blush of erysipelas extended over the skin outwards and downwards. On the 16th erysipelas was disappearing. The edges of the wound were hard, and this hardness extended over the left buttock generally. On the 27th the cicatrix of the old abscess was opened, and about six drachms of pus (foul) came away.

On Jan. 3rd the hardness of the buttock had disappeared, and a fortnight later about an ounce of pus came from the cicatrix. On the 20th there was still a slight thin discharge from the wound in the buttock. On the 29th there was redness about the wound, and the woman had a rigor on the previous evening, lasting about half an hour. After this there was decided improvement.

On Feb. 7th she passed her motions fairly regularly, but they were hard. On the 9th the erysipelas was gone. On the 11th she seemed pretty well and comfortable. On the 22nd there was no sphincter power, and the incontinence gave great trouble. Between the anus and vagina was a fold of mucous membrane, which partly separated them. The sinus was closing. The aperture into the rectum admitted two fingers easily, and perhaps more. She had some diarrhœa. She had improved in appearance. She was discharged relieved.

From Dec. 1st to the 27th the temperature varied from 100° to 105·8°, this, the highest, being reached on the evening of the 14th. From Dec. 28th onwards the temperature ranged between 98·2° and 102°, though for the most part it was nearly normal. On the evening of Feb. 3rd there was a sudden rise to 104·2°, but next morning the temperature was normal again, and continued so.

CASE 2. *Cancer of Rectum in a boy aged fifteen; Colotomy; Relief.* (From notes by Mr. Henry Gard).—Samuel R——, aged fifteen, of Rye, was admitted on Dec. 20th, 1881, into Job ward. In the previous August he experienced great pain in defecation, passed a little blood each time, and about this time he began to feel severe lancinating pains. At first it was thought he had dysentery, and he was given suppositories, and took quinine and chemical food. Subsequently a growth in the rectum was diagnosed, and he was sent to England to be operated upon. He had at times passed a fortnight without alvine evacuation, and for a month before admission he had constantly had to use castor oil. When admitted he had not had a motion for six days.

On examination of the rectum a large growth, occupying the whole circumference of the bowel was discovered. The tip of the finger could just touch the lower end of the band, but the upper margin could not be reached. The mass was hard, and presented a sharply-marked edge to the finger. The growth appeared fixed in front and behind. Morphia and opium were given to relieve pain.

On Dec. 30th colotomy was performed. Nothing but colotomy could be suggested. No difficulty was experienced in the operation in Mr. Bryant's usual way. A healthy motion passed directly the intestine was opened.

On Jan. 1st he complained of pain in the stomach, but was easier after the operation. There was a thick discharge from the anus. On the 4th he complained of pain in the rectum sufficient to keep him awake. On the 7th the stitches were taken out; the wound looked healthy. Patient constantly required injections to enable him to sleep. On the 19th, at 5 P.M., a discharge of sanious pus, sometimes thick and sometimes thin, from the rectum appeared, and there was great pain at the seat of the disease. On the 24th he complained of great pain in the hypogastric region. The abdomen was hard and distended. Considerable pain in the rectum. On the 26th patient got up, and next day he was free from tenderness over the abdomen. The wound looked healthy. The rectum was washed out with glycerine and water, and some of the liquid came through the artificial anus. On the 28th he was in considerable pain, but was relieved by an injection.

On Feb. 8th he left the hospital with a healthy artificial anus. He still suffered from much pain in the rectum, and had a free discharge of pus. Took out with him one dozen morphia suppositories.

For a few days after the operation the temperature ranged from 98·6° to 101·4°. It then became normal and continued so.

The boy died exhausted in the middle of April, 1882.

NORTH STAFFORDSHIRE INFIRMARY.

REMOVAL OF ENTIRE UTERUS, LEFT OVARY, AND FALLOPIAN TUBE.

(Under the care of Mr. W. DUNNETT SPANTON.)

FOR the following notes we are indebted to Mr. W. T. Clegg, house-surgeon.

Elizabeth J——, aged forty-three, spare but not cachectic, married, but had no children, was admitted into the North Staffordshire Infirmary March 25th, 1882. For some months previously she had experienced pain in the back and uterine region, with frequent desire to micturate. Menstruation had been regular, not profuse, but attended with great pain. The pain had been so intense as to render life almost intoler able, and she was anxious to submit to any measure likely to afford relief from it.

When examined, the uterus was found to be quite movable, enlarged, exceedingly hard to the touch, and nodular. The cervix was almost absent, the uterine tissue with the internal os being felt, as it were, through the opening of the upper part of the vagina. The sound passed three inches into the uterus, causing much pain. All other organs appeared free from disease. A consultation was held, and it was found that all ordinary methods of treatment failed to mitigate the pain, and the patient was desirous to have anything done which would afford a prospect of relief. On March 30th, under the influence of ether, the uterus was removed. An incision through the linea alba of about four inches was made, the small intestines carefully withdrawn through the wound and wrapped in hot sponge cloths, and then a silk ligature passed through the fundus uteri, which was found of great service in lifting up the uterus. A silk ligature was then passed through three portions of each broad ligament, after the manner of Freund, so as to include the ovarian artery, the round ligament, and the uterine arteries. Each broad ligament was then divided near the uterus on the right side, but external to the Fallopian tube and ovary on the left side, and the vaginal roof divided at its junction with the uterus, which was then removed with the left ovary and Fallopian tube attached. The uterus after removal was found to contain several hard nodules of myoma, embedded in the muscular wall. The cavity was three inches in length; cervix absent up to internal os uteri, being entirely eroded by infiltration of epithelioma, which was, however, limited to that part. It appeared to be an example of so-called liquefactive epithelioma, in which the tissues melted away as it were, leaving only microscopic evidences of its true character. The microscopic examination of the tumours showed the ordinary appearances of myo-fibroma, but with more round cell infiltration than is usually met with, approaching a round-celled sarcoma in its character. There was nothing abnormal about the Fallopian tubes or ovaries. There was no hæmorrhage, certainly not more than an ounce of blood being lost throughout. Two small branches at the lower part of the broad ligament were secured with catgut for precaution. A large glass drainage-tube was inserted into the vagina, quite filling up the supra-vaginal opening, and the abdominal wound was closed by ordinary silkworm-gut sutures, and dressed with eucalyptus gauze. The whole operation—performed under the eucalyptol spray—from the time the patient was brought into the room to being finally arranged in bed occupied less than an hour. In the evening of the same day the patient seemed comfortable; had no sickness; about a pint of clear urine had passed through catheter. Temperature 100·2°; pulse 102. At 12 P.M. the temperature and pulse continued the same. At 4 A.M. next morning (March 31st) the temperature was 100·4°; pulse 98. The patient had passed a good night. About a pint of clear urine passed by catheter. There was not much pain, but considerable distension of the abdomen. There was a slight sanguineous discharge into the vaginal tube, requiring a fresh plug. Temperature 99·4°; pulse 102. During the day the patient complained of pain in the abdomen, for which morphia suppository was employed; but restlessness and increasing weakness ended in death at 3 A.M. on April 1st.

Post-mortem examination, next day.—The abdominal wound had healed throughout the deeper parts. The coils of the intestine were distended and sticky with recent lymph. The pelvic cavity was dry and clean, and there was no trace of hæmorrhage. The silk ligatures were firm. The ureters were quite free, on the left side more than an inch, and on the right not more than half an inch to the outer side of the lowest ligature.

The result of this case, although not successful, is very satisfactory, as showing that this operation may be performed (1) without any extraordinary difficulty, (2) without hæmorrhage, (3) without danger to the neighbouring parts, and (4) with a fair chance of eradicating the disease as completely as in operations for malignant disease in other parts of the body. The recuperative powers of the patient appear to be the one element of great uncertainty in the success attending the operation.

CUMBERLAND INFIRMARY, CARLISLE.

CHLOROFORM FRIGHT IN A CASE OF ANCHYLOSIS OF ELBOW JOINT.

(Under the care of Dr. H. A. LEDIARD.)

FOR the following notes we are indebted to Dr. Leith Waters, house-surgeon.

M. B——, aged nineteen, a strumous-conditioned girl with enlarged flabby tongue, on whom excision was about to be performed, was put under the influence of chloroform on Sept. 11th, 1882, and had taken from about two to four drachms. The knife had not touched the skin, and the spray had just begun to act over the parts when, without any stertor or warning note, the breathing, soft from the first, became imperceptible to the ear under the swish of the spray, and then completely stopped. About the same time, or perhaps before the stoppage of respiration, the face became markedly pallid, while the pulse, though weak and irregular, was felt in the radials throughout the period of fright, which lasted for about half an hour. Artificial respiration was at once begun—first by the direct, then by Silvester's method, and was kept up with momentary stoppages during the period. The windows were thrown open, and the chest, with shoulders raised and head thrown back and lowered, was well flipped with cold-water towels, &c. The faradaic current, one pole over the phrenic and the other over the epigastrium, was kept up at intervals during the latter part of the period. This brought on thorough and immediate action of the diaphragm and the abdominal muscles of expiration, greatly aiding the now almost restored efforts at voluntary respiration.

The operation was postponed, and to be next time anæsthetised by ether. A prolonged drowsiness followed the restoration of breathing, and during this period stimulants were administered, the patient being at the same time prevented from falling into torpor by the assiduous stimulation of the face and chest by cold water and by the kneading of the ribs.

A careful examination of the heart after the patient had been removed to bed showed the existence of some presystolic roughness in the mitral area. In the urine there was a good trace of albumen, but no sugar. She had an attack of scarlet fever when ten years of age. There is no history of rheumatic fever or pains, but her father died of heart disease at the age of fifty-eight. It is worthy of note that three days previously the patient had taken chloroform very well, it having been administered in order thoroughly to examine the joint and break down adhesions if possible.

Sept. 18th: Patient was carefully and successfully placed under the influence of ether, and the joint excised by a single longitudinal incision. Firm osseous anchylosis was present, which did not, however, extend to the radio-humeral articulation. During the insensibility the breathing was good and audible; but the pulse sank to about 56 for a short time.

The administration of ether was kindly watched by Dr. Barnes, physician to the infirmary.

A RESCUE BOAT-RACE.—At the Clevedon Regatta on Saturday last, a novelty was introduced in the shape of a "Rescue race." The idea was originated by Dr. Richardson, F.R.S. (who is staying in Clevedon), who gave the first prize of £1 1s., Mrs. Richardson giving the second of 10s. 6d. The whole of the competing boats had to be stranded high and dry upon the beach, and at a given signal the men had to get them launched, and then proceed to try to pick up one of two objects, representing drowning men floating about three-quarters of a mile out in the bay.—*Bath Mercury*, Sept. 26th.

Reviews and Notices of Books.

Schematic Anatomy; or, Diagrams, Tables, and Notes, treating of the Association and Systematic Arrangement of Structural Details of Human Anatomy. By W. P. MEARS, M.B., co-Lecturer on Anatomy, Supervisor of Dissections, and Medical Tutor at the Durham College of Medicine, Newcastle-upon-Tyne. London: Baillière, Tindall, and Cox. 1882.

THE aim of this work is decidedly novel. Students and lecturers have always made use of diagrams and notes of associated facts in learning or teaching the numerous details of human anatomy, but we have never before seen such an ambitious attempt at "aids to memory" as is here presented to us. The bones, ligaments, muscles, vessels, and nerves are tabulated and delineated—we cannot say described,—and we are promised the viscera in a second volume. The student is recommended to display the facts on the dead subject in the first place, and then to fix them in his memory by means of a corresponding schema or diagram. If there were any real relationship between the dissected part and the mathematically-drawn figures in this work, it would be a valuable addition to the text-books used by the student, but the more elaborate the schemata and diagrams become, and the more closely the associations are urged, the more apparent are their divergences from the true details of human anatomy. In the sketch of the femur, facing page 36, the relative attachments of the muscles are inaccurately shown, for the insertion of the adductor longus is made to correspond in extent with the origin of the femoral head of the biceps, and more space is allotted to the plantaris than to either head of the gastrocnemius. The diagrams of some of the plexuses are most extraordinary, and representations by exactly similar outlines of the inferior dental, gustatory, glosso-pharyngeal, and hypoglossal nerves and their branches (p. 176), must confuse the student rather than diminish his labours. The book has evidently caused Mr. Mears much trouble and thought, but an insistence on the constant use of the scalpel and forceps is the only true method of teaching anatomy, and a few diagrams and tables constructed by the student himself from his own dissections will remain much longer in his memory than the elaborate and somewhat complicated system drawn up by the author.

The Tissues and their Structure. A description of the Elementary Tissues of the Human Body. By A. S. KENNY, M.R.C.S.E., Senior Demonstrator of Anatomy in King's College, London. London: David Bogue. 1882.

THIS small work of 120 pages contains a very clear and accurate description of the elementary tissues and their functions, and is especially adapted for beginners in histology. It will enable them to form some conception of the general structure and functions of the tissues which they are practically investigating, and should be used with the text-book, which directs them how to proceed with their manipulations. The book is well printed, and the illustrations, many of which are quite new, are excellently drawn.

The Compend of Anatomy. By JOHN B. ROBERTS, A.M., M.D., Lecturer on Anatomy and on Operative Surgery in the Philadelphia School of Anatomy, &c. Second Edition, revised. London: Henry Kimpton. 1882.

THE fact that a book has rapidly run through a first edition is a recommendation in its favour, but we entertain a great distrust of small works that assume to give concise statements of what is deemed essential to the student in human anatomy or any other science. This distrust is not removed by the volume before us, for all the *essential* details are contained in less than 200 pages. The necessary conciseness has been obtained at the expense of adequate description, for the only details of muscles and nerves which the author gives are those which can be seen at a glance in a series of tables. It is announced in the preface that the statements and general arrangement of Gray have been followed, and this is evidently true, for the book appears to us to be merely an abridgment of that work, whilst many of the advantages and excellences of the latter are lost. The only novelty is a partial substitution of English names for Latin ones, and this is not always an unmixed gain—e.g., is "compend" a better word than "compendium"?

Publications of the Association for the Advancement of Medicine by Research. London: J. W. Kolckmann. 1882.

THE Association for the Advancement of Medicine by Research has issued its first batch of publications, consisting of four pamphlets. They are none of them new, but are reprints of addresses on the aims, methods, and purposes of scientific experiments on animals. We are glad that the Association has utilised the excellent address of Mr. Simon at the opening of the State Medicine Section of the International Medical Congress. This bears the title of "Experiments on Life," as fundamental to the science of preventive medicine, and sets forth in a most masterly manner the value and extreme economy of direct experiment upon living animals. Two other of the pamphlets regard the practical results to surgeons of vivisectional experiments; these are Dr. Humphry's short address at Ryde, entitled "Vivisection: what good has it done?" and Dr. McDonnell's address delivered before the Surgical Society of Ireland, entitled "What has Experimental Physiology done for the Advancement of the Practice of Surgery?" With the former of these our readers are familiar, as it has already been widely circulated among the profession, with whom it is judged to have but one failing—brevity. Dr. McDonnell's Address is an extremely useful one, and deservedly ranks with those already mentioned. No attempt is made to detail all the benefits surgery has derived from experiments on animals; reference is chiefly confined to their value in the study of anæsthetics, the introduction of the administration of potent remedies by hypodermic injection, the bloodless surgery now so generally practised, the arrest of hæmorrhage, and the treatment of wounds. The fear that performing or witnessing such experiments blunting the moral perceptions is shown to be entirely groundless. The fourth of this series of pamphlets is Mr. Wm. Bowman's Address in Surgery, read at Chester, at the meeting of the British Medical Association in 1877. The main topics of this address are the essential unity of the art, its dependence upon science, and the advantages of union and organisation for the promotion of common objects. Incidentally Mr. Bowman vindicates the right and duty of experiments on living animals; and this it is, we presume, which leads to the republication of this address at the present time, and in its present form. We congratulate the Association on so quickly setting to work, and on the choice it has made for its first publications, which we hope will be very widely read and studied. The best support the profession can give to the Association is to become apt pupils, to avail themselves of the opportunities afforded of obtaining thorough acquaintance with the part scientific experiments have played in the vast strides our art has made during the last century; and a wise distribution of their pamphlets among the more intelligent of the general population will also greatly aid the cause we have at heart.

Die Parasitären Krankheiten des Menschen. I. Entwickelungsgeschichte und Parasitismus der Menschlichen Cestoden. Von SIGMUND THEODOR STEIN. (*Parasitic Diseases of Man. I. Developmental History and Parasitism of Human Cestodes.* By SIGMUND THEODOR STEIN.) Lahr: Schauenburg. London: Trübner. 1882.

THIS handsome monograph upon the very interesting class of tapeworms is, as the title-page and introduction

inform us, but the first of a series of similar works dealing with the parasites of man that Herr Stein has in view. He intends to issue another part dealing in like manner with the nematode, trematode, and arachnid parasites; a third with the dermatozoa, epizoa, and epiphytes; a fourth with the protozoa, infusoria, and fungi. The present treatise commences with a brief historical introduction, in which the labours of von Siebold, Leuckart, and Küchenmeister are especially dealt with; but we fail to find any reference to English writers in this place. In justice to the author, however, it should be added that in the body of the work he shows himself fully acquainted with Dr. Cobbold's labours. The first chapter deals with the larval condition of tape worms, and is copiously illustrated with figures of measly flesh and the cysticerci. Indeed, the whole volume is most fully adorned with engravings, in addition to fourteen large photo-lithographic plates at the end. The second chapter treats of the developmental history of the human tapeworm: first the characters common to Tænia solium and T. saginata (T. mediocanellata) are described, and then the differential points. Then comes a description of each of these worms in the adult form, followed by full and minute details as to the formation of the generative organs and the development of the embryo. The genus Bothriocephalus forms the subject of the third chapter; the same minuteness of description characterising the previous studies being also shown here. Of course, most of this chapter deals with the common form, Bothriocephalus latus; but a section is devoted to the rarer species, B. cordatus and cristatus. In the fourth chapter we have descriptions of such rarer tæniæ as T. nana, T. flavopuncta, T. cucumerina-cliptica. The fifth chapter is entitled, "The influence of tapeworms and their progeny on the human body, including therapeutical measures." The sixth chapter treats of the echinococci, and concludes the work. The following figures compiled from Davaine, Cobbold, Finsen and Neisser are interesting as showing the comparative frequency of hydatid disease in various organs:—Out of a total of 1862 cases, the liver was the seat of the parasite in 953, intestinal tract in 103, lungs and pleura in 153, kidneys, bladder, and sexual organs in 186, brain and spinal cord in 127, bones in 61, heart and bloodvessels in 61, and other organs in 158. The work bears evidence of considerable original research and an extended study of the literature of the subject.

THE GENEVA CONGRESS.

No. III.

As in the five sections no less than fifty-one questions had to be discussed, we are compelled to abandon the hope of giving even the briefest account of each of these interesting debates. Of the general meetings we have already given some account. They were not altogether satisfactory. The afternoon devoted to Professor A. Corradi's paper on the contagion of phthisis failed to elicit anything new. Various suggestions, however, were made. Dr. E. Valin, for instance, though inclined to believe in the contagious nature of the disease, remarked that the fact that animals inoculated with the bacillus of phthisis contracted the disease did not absolutely prove the susceptibility of man to this germ. Guinea-pigs would die of phthisis if shut up in the same room as a man suffering from this disease, without there being any inoculation. In any case, while on the Continent zymotic patients could not be isolated, it was much too soon to speak of the isolation of tuberculosis. Indeed throughout the discussion it was clear that grave doubts still existed as to the contagious nature of phthisis, and a strong feeling was manifest against isolation. The depressing effect of isolation hospitals would act almost as a sentence of death upon the patients, according to Dr. E. Landowski's experience. Dr. Lubenski, delegate of the Warsaw medical school, thought that the clothes and beds were the most likely source of infection, and suggested researches as to the special character of the perspiration coming from phthisical patients. Another speaker inquired whether it would not be well to study the effect of sewer-gas and sewage on the vitality of the bacillus; as the prevalence of phthisis was more marked in districts where the drainage was bad, and general hygiene neglected. Dr. Leudet of Rouen gave the result of twenty-eight years' study of fifty-six families with whom he was intimately acquainted. In fifteen cases the husband, and in forty-one cases the wife, died of tuberculosis. Of the fifteen widows five ultimately showed symptoms of tuberculosis. This might encourage the belief in contagion, but one of the women had a rachitic deviation, another lost her aunt, and the third her sister from the same disease. Of the forty-one widowers, only three died of phthisis. Therefore, Dr. Leudet concludes that if marriage is a cause of contagion, the contagion is more frequent from the husband to the wife than from the wife to the husband.

After this discussion, Dr. Varrentrapp, medical officer of health for Frankfort, gave a very interesting account of the school colonies organised in Germany for the purpose of sending the weak and poor children of large towns for four to six weeks to the country during the holidays. Guetlet's comparative tables are used to record the weights and measurement of the children at their departure and their return from these expeditions. The improvement was found to be on an average 1 kilo 300 grms. for the boys, and 1 kilo 490 grms. for the girls, and the average growth two centimetres. The remarkable point was that the good impulse given by this sojourn in the country continued after the return to town. The children also acquired habits of cleanliness and discipline, and the cause of education derived great benefits from this system. In Denmark it was the custom to send two or three children to board with an agriculturist, who took them for nothing in exchange for their labour. The railway and steam companies gave these children free passage, and thus 7000 children were able to escape for a little while the injurious effects of overcrowded towns. At Berne the school teachers were in the habit of taking thirty to forty children to the country, when special contracts were made with purveyors, and the authorities provided gratuitous conveyance. The Pastor Zillon, of Zurich, first started this idea, and now in twenty-two towns of Germany regular holiday colonies have been organised. Milan was the only other town that had followed the German method in the organising of these holiday colonies. The next general discussion related to the effect of altitudes on the health of patients, &c., when Dr. Paul Bert delivered the remarkable speech already mentioned in these columns. To his experiments on mountain sickness we should now, however, add his peroration, rich in speculative thought. Dr. Paul Bert having shown that the blood of animals living in low countries absorbs from 10 to 12 per cent. its weight of oxygen, whereas the blood of the same animals acclimatised at La Paz, some 12,000 feet above the level of the sea, absorbed from 18 to 20 per cent. its weight of oxygen, concluded with these words:—"Thus, therefore, when men or animals resort to high altitudes they become acclimatised in the course of a few generations. Their blood, being enriched by a larger proportion of hæmoglobin, is capable of absorbing a much greater quantity of oxygen. Such results are most consoling for the future of human races. You are all aware that astronomers menace us with annihilation, which, though in the far future, is none the less certain. They tell us that the central fire will gradually go out, that the air which surrounds us will ultimately reach the profoundest depth of the globe, and, the atmospheric pressure slowly diminishing, the moment will come when it will no longer suffice to maintain life. I do not wish to challenge these pessimist predictions; but their gravity is singularly attenuated by the considerations I have brought to your notice. What has happened to save the inhabitants of the Cordilleras will save our descendants. As the barometric pressure decreases their blood will alter in character, to harmonise with the surrounding atmosphere. The facility for absorbing the oxygen of the air will augment, and life

will continue to be possible long after the epoch when, according to calculations based on our present condition, the human race is doomed to die."

Dr. W. Marcet, F.R.S., also gave a very interesting account of his scientific experiences while mountaineering. He thought that cold and the rapidity of the ascension had a far larger share than is generally supposed in producing "mountain sickness," and had noticed that the southern or warmer side of a mountain was never so painful to climb. As a means of procuring oxygen, so necessary to combat the effect of high altitudes, he suggested chlorate of potash, for it was easy to carry, and liberates oxygen when in contact with the heat of the mouth. Cold corresponded with the lack of oxygen, and by careful experiments he found that his breath contained 19 per cent. less carbonic acid on the summit of a high mountain than at Geneva. With his assistant the difference had been greater—namely, 21·8 per cent. Dr. Marcet concluded, like all the other speakers, with the opinion that medium altitudes had a tendency to check phthisis.

At the final general meeting of the Congress a paper was read by Dr. Haltenhoff of Geneva, on the Prevention of Blindness. Though statistics were not complete, particularly those of countries where blindness was most prevalent, such as Russia, Algeria, Turkey, and Egypt, yet they might calculate that there was at least one blind person out of every thousand of the European population. This gave us about 330,000 blind persons in Europe, and the larger half of these cases might have been prevented. Fortunately an English philanthropic society had taken the matter in hand, one of its principal means of action being the distribution of short popular pamphlets full of practical, intelligible suggestions. Dr. M. Roth, the secretary of the Society for the Prevention of Blindness, had known how to rally the French hygienists to his cause, and at the Turin Congress it was resolved to make this a subject of discussion at Geneva. In the meanwhile, the English Society had decided to offer £80 for the best work, written in English, German, French, or Italian, on the subject. The speeches that followed, and notably an able oration from Dr. Roth, in which he calculated that the blind of Europe cost society 100,000,000 fr. to maintain, all went to prove that neglect in childhood and at the first outbreak of disease was the cause of the far greater number of cases of total blindness.

At the termination of this discussion, Dr. A. J. Martin, general secretary of the Paris Société de Médecine Publique, read the official report he had been requested to prepare on the Sanitary Exhibition, remarking that the Swiss law on patents had kept many exhibitors away. The report naturally partook of the general enthusiasm which prevailed throughout the Congress, but it was ably written, and Dr. Martin did venture to attack, at least, one or two faulty exhibits. This document has already been published *in extenso* in the Swiss and French papers.

There now only remained to decide where the next Congress should meet; and, in response to an invitation transmitted by Dr. van Overbeek de Meyer, it was unanimously resolved that the Fifth International Congress of Hygiene should be held at La Haye in 1884. Dr. van Overbeek de Meyer will be one of the principal organisers of the forthcoming Congress, and communications on the subject can now be addressed to him at the University of Utrecht.

Perhaps one of the most stirring incidents of the last sitting was the speech delivered by Dr. P. Boener of Berlin, which, as it contains an invitation that some of our readers may feel disposed to accept, we will translate:—"A fatal destiny destroyed our sanitary exhibition on the 12th of May, just as everything was ready. The objects were all in their places, the catalogues printed; we were only waiting for the public. In one hour, as you are aware, all this labour was annihilated. But we have not lost heart; and our courage was revived by the cordial sympathy we received from all sides. Our misfortune was due to employment of wood for the building of the exhibition. Now, however, I have the joy of announcing that a new edifice has already been raised on the ashes of its predecessor, and that this time it is built of glass and iron, filled with new exhibits, some of which had not been sent on the previous occasion; and it is with a feeling of no small satisfaction that I have the honour of presenting to the Congress the programme of the new and resuscitated exhibition." At this moment the members of the Congress, anxious to manifest their sympathies, gave vent to the warmest cheers and applause. The speaker, visibly moved, continued:—"Our exhibition, from purely practical motives, is not called international; but we will receive with gratitude anything of interest from whatever country it may come. In visiting Berlin, you will find something more than this exhibition of hygiene, which by its very nature is as international as humanity. By the side of the material interest in the exhibits, the sanitary works of the capital, you will meet a cordial, hospitable, and warm welcome." After a fresh outburst of cheers, and on the proposition of the President, the Congress passed a resolution expressing sympathy for the past and encouragement for the future. In this matter the French members of the Congress manifested a cordiality which showed how much devotion to a noble science can help to mitigate political and national antagonism.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IT appears from the statistics of the College examinations, which are published in the new Calendar just issued, that during the official year ending Midsummer Day last, 46 candidates passed the first examination for the Fellowship of the College, and 61 were referred for six months; 21 candidates passed the final examination and were admitted Fellows, and 21 were referred for one year. For the primary Membership there were 1091 candidates examined, of whom 743 passed, and 305 were referred for three and 43 for six months. At the final examination for the diploma of Member 666 candidates were examined, of whom 343 passed; 56 passed in surgery, and during the year qualified in the other subjects,—making altogether 399 diplomas granted in the year; 69 candidates were approved in surgery, to qualify in medicine and midwifery; and 254 were referred for six months. During the year there have been three meetings of the Board in Dental Surgery, and 32 candidates have been examined, 28 of whom obtained the diploma.

The Calendar contains some interesting tables which accompanied the Report prepared for the Royal Commission on the Medical Acts, showing the number of registrable titles granted by the College during the five collegiate years from 1876–77 to 1880–81, ending on the second Thursday in July in each year, and the receipts from examinations and from other sources, and the expenditure in the several departments in the College over the same period. It appears that of the 300 honorary Fellows elected under the Charter of 1843 only forty-three are now living, Mr. James Moncrieff Arnott being the senior and Mr. Spencer Smith the junior Fellow of that batch. The total number of Fellows of the College now is 1186, of whom 586 were admitted after examination, and 600 by election.

Thirty-two deaths have been reported during the year, thirteen of which occurred at the advanced age of fourscore and upwards—viz., Michael Thomas Greenhow, of Leeds, eighty-nine; George Macilwain, of Harlow, eighty-six; John Flint South, of Blackheath, late President of the College, eighty-five; Henry John Gore, of Tunbridge Wells, eighty-five; Richard Thomas Gore, of Bath, eighty-four; James Luke, of High Wycombe, late President of the College, eighty-three; George Rawbone, of Tooting Graveney, eighty-three; T. Pollock, of Hornsey, eighty-four; George Sampson, eighty-five; Edward Greatrix, late of the Royal Horse Guards, eighty-two; Edward Doubleday, of Long Clawson, eighty-four; John Lonsdale Mimshull, of Liverpool, eighty-one; and Price Blackwood Hallowes, of Canterbury, eighty-one.

BY the upsetting and breaking of the gig in which he was riding, Dr. C. C. Greig, of Fyvie, has, we regret to learn, sustained injuries of a serious, though, it is hoped, not of a dangerous character.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 30, 1882.

NOW is the time of preaching. At this season of the year parents, guardians, relatives, friends, teachers, and writers in the lay and medical press claim the privilege to lecture, caution, monish, and advise the medical tyro. Within a week the students assembled at the various medical schools scattered throughout England will have had sounded in their ears alternate notes of solemn warning and lively welcome; they will have been congratulated on the choice they have made both of a profession and school, harangued on the loftiness and nobility of their vocation, and flattered with the prospect of material and intellectual triumphs. They will have been told what scope their powers will find in the study and practice of medicine, and they will have received many a useful hint and suggestion as to how those powers may best be trained for their ultimate employment. The virtues of honesty, sincerity, diligence, perseverance, sobriety, truthfulness, and respect for those in authority will have been justly and becomingly magnified. In short, the novice will have been plainly told that if he should ultimately fail to reach the goal the fault will be his own.

It is an excellent practice thus to offer words of warning and of counsel to those who are about to enter the medical profession. It has been continued so long, and has received the sanction and approval of so many masters, that it must be salutary. At any rate, few have had the courage to declare its vanity. We at least have no disposition to question its utility; we would rather extend its application. It may be well to turn the tables for once, and take ourselves to task, and ponder some of the wise utterances prepared for students in our hearts. *Quis custodiet custodes?* Who shall admonish the teachers? The very thought savours of presumption.

The strictures upon students, on the one hand, and upon examiners on the other, during the last twenty years, have been neither few nor slight. The idleness, indifference, ignorance, and stupidity of students, have formed the staple of most of the official utterances of examiners, and have been echoed by teachers, while examiners in their turn have been freely charged with incapacity, incompetence, selfishness, and cupidity. Meanwhile the teacher has usually escaped. Few have ever ventured to carry criticism into the teachers' camp. It seems to have been tacitly assumed that the office of teacher is inviolable. Interference with his function has always been sharply resented and quickly checked. And yet it would be hard to maintain that the attainments of teachers have kept pace with the increasing requirements of examinations. On the contrary, the relations of medical education and examinations have been reversed. Students are now the slaves of the examinations; everywhere they are over-examined and under-taught. Anyone whose business or inclination may lead him to visit the examinations conducted by the various examining bodies—say the Royal College of Surgeons of England—will soon be convinced that the majority of candidates exhibit a "plentiful lack" of education and training. They are not devoid of knowledge, their memories have been fairly exercised, their answers often rise readily to the lips, and still it is obvious that with most of them the reasoning faculty is almost in abeyance. If memory should play them false, reason, so long neglected, finally refuses her aid. This implies defective training and preparation, the responsibility of which rests chiefly upon teachers. Candidates are not, as a rule, ignorant, but they are uneducated; they show no signs of having been taught the philosophy of things. Of empirical knowledge they have enough, and to spare. They are familiar with quite a host of isolated facts, but are unacquainted with the relation and connexion of these facts. They have been instructed, but not trained. Information has been mechanically imparted, and is given out again in like manner. This is the fallacy underlying most educational schemes now-a-days. Many conscientious teachers fall into the error of mistaking instruction and the imparting of information for education whereas the evil is that the student is taught too many things—*multa* instead of *multum*. The late DR. LATHAM saw the danger in his time. "In our day," he said nearly fifty years ago, "there is little fear that students will be spoiled by the recommendation of their instructors to be content with a scanty knowledge, and trust to their own sagacity for the rest." A life-time will not suffice for the acquirement of every accomplishment which might be mentioned as subservient to the medical profession. DR. ROTHE at the end of the last century published a select catalogue of medical works, every one of which he considered as good and useful for the medical student and practitioners. Of this formidable list THOMAS YOUNG said that a person "beginning with languages might spend the first ten years of his studies without getting much further than the 'Chinese,' and twenty more before he came to those of the 'Bohemians' and 'gipsies'; to say nothing of the 'logical, metaphysical, moral, political, statistical, technological, agricultural, mathematical, geographical, chronological, genealogical, heraldic, diplomatic, numismatic, and historical' works which are to follow, before he enters on chemistry and anatomy." This is, perhaps, the *reductio ad absurdum* of medical education, and yet it is not much more impracticable than many of the schemes of some modern reformers.

Improvement in medical education, therefore, must begin with the teachers themselves. The teacher must be made to feel his responsibilities more acutely. The art of teaching is difficult, but it may be acquired by every earnest mind. It is not enough for a teacher to be punctual, he must be industrious and, above all, scrupulously honest. The process of education is slow, tedious, and often painful, and demands patience, perseverance, and restraint. The result is so remote, and so uncertain, that the consciousness of having honestly done his best may be the only reward the teacher may receive for all his pains, but the reward is precious.

WE have at least one thing for which already to be thankful to the Royal Commission, and that is for eliciting from the very highest authorities the best defence of the system by which the Fellowships of the Scotch Corporations,

particularly that of the Royal College of Surgeons, are bestowed. We ourselves are largely responsible for directing public attention to this question. We admit feeling the deepest interest in it, and we will further confess to being utterly dissatisfied with the defence put forward in the name and at the request of the Edinburgh College. There is this one thing good, however, in that defence. It was made by Professor SPENCE, and in perfect good faith. If the defence of such a man does not carry conviction or bring back respect, the system must be considered incapable of justification, and fit only for abolition. The Royal Commissioners seem to be entirely of our opinion. They, in the 54th and 81st paragraphs of their Report, say as follows:—

"54. We do not propose to interfere with the present powers of Universities or Corporations to confer their titles, with or without examination. We think, however, that, in the case of persons entitled to be registered, a discretion should be given to the Medical Council to permit these titles to be registered or not, as they see fit.

"81. We think that a column should be set apart in the Register for the registration of the higher titles recognised by the Medical Council as indicating substantially higher medical qualifications than are required for a licence."

The authorities of the Edinburgh College know as well as we do, that under such clauses, with a reformed Medical Council, the present Surgical Fellowship of the Edinburgh College could not be registered in future.

But let us have the College's defence of its present Bogus Fellowships. This will be found in substance in the evidence of Professor SPENCE, published by us last week. Mr. SPENCE says essentially three things—1st, that the title of Fellow does not imply a qualification to practise or a higher degree, but only that the Fellow is an associate of the College; 2nd, that to deny the Fellowship, except on terms of extra study and time, is to saddle a young man with expense in a way that is not right; 3rd, that under the examining system the College was in a state of marasmus—"dwindling away." It will be seen shortly that the adoption of the non-examining, or, as we may call it, the purchasing system, operated on the "dwindling" College as cod-liver oil on a tabetic patient. But let us examine the points of Mr. SPENCE'S defence of the system in detail, for it must be remembered that the College did not always sell its Fellowships, but that, until the date of its present charter, 1851, it acted as its sister Colleges do, and gave its Fellowships on terms of examination.

It is alleged that the Fellowship is not a qualification to practise or a higher degree, but only a title of association. We demur to this representation altogether. It is true that the Fellowship is not given to one who is not already licensed to practise, but his licence may be of the lowest order, and on the strength of this, with the addition of the most easily obtained testimonials, he is admitted by a ballot vote to the Fellowship. This Fellowship once obtained, no matter how—and here is the serious and substantial error in the College's representation,—it becomes an actual qualification for some of the most responsible parts of medical duty. It is a *sine quâ non* in regard to the surgical appointments, for example, of the London hospitals; and it is a matter of notoriety that the Fellowship of Edinburgh is taken, not from any interest in the affairs or government of the College, but as a qualification for hospital appointments. Is it not misleading, to the public at any rate, to say that this is not a qualification, and that it is not a higher degree? Can there be a more unfair use of a high title than to disconnect it from the examinations with which in the sister Colleges it is associated—unfair to the public who are misled by it, and unfair to the great bulk of practitioners who, with their ordinary titles, gained by passing respected examinations, are placed at a discount? We maintain, then, that the Fellowship is virtually a qualification, and that it is very unfair to grant it on the strength of a mere licence to practise, backed by testimonials which anyone can get who has shown reasonable compliance with the Decalogue. Is there any more force in Mr. SPENCE'S argument, that to withhold a Fellowship, except on terms of extra study and education, is to hinder a young man's progress, and is going beyond the right of Corporations? Does the Edinburgh College itself not hinder a young man by saying that he shall not have the Fellowship till he is twenty-five, and that he shall not have it till he has paid a large sum for it? Mr. SPENCE condemns one part of his argument by the other part. He says that a young man is licensed to practise apart from the Fellowship. How, then, is he hindered except in regard to those appointments for which, as we have shown, the Fellowship is an actual *qualification*, which Mr. SPENCE says it is not. As Mr. SPENCE'S first two arguments crumble to pieces on close handling, the strength of his convictions must be looked for in his third, the dwindling condition of his college. The accounts of the College given in the Blue-book show that the granting of Fellowships is a growing and lucrative business. Since 1876 the College has got £4325 for its Fellowships. This is pure profit, be it remembered, and involves no outlay on examinations. In that year it received in fees from Fellows £675, but in 1880 the sum had gone up to £1100. This sum, added to the other fees, got from those who take the single, but especially the double qualification, relieves the College of all feelings of wasting, and explains the tenacity with which the system is defended. We cannot conceal, however, our regret and surprise that it should be so defended, and we cannot withdraw our conviction that a Fellowship so given and so used is a bogus Fellowship that will not bear examination, and will never command respect.

PROBABLY no one who has personally observed the working of the Contagious Diseases Acts questions their value, either from a sanitary, a social, or a moral point of view. There may have been instances of maladministration at the outset, when the Acts first came into operation; though it must be confessed we have never seen a tittle of evidence that even passing inconvenience was ever inflicted on an individual who did not lay herself or her conduct open to misconstruction by the officers charged to enforce the law. If, however, there had been cases of mistake and wrongful apprehension, that would in no way affect the question of public expediency, or qualify the fact that the garrison towns wherein these Acts are in force are no longer, as they once were, hotbeds of vice, forming poison-centres for the whole country, and demoralising the entire community. The contrast apparent between the present state of such towns as Portsmouth, for example, now as compared with thirty years ago, is as the difference between light and darkness—

between a baited trap for the youths and men who had occasion to pass through that town, or perhaps reside in it for a while, and a place where it is not only possible, but easy, to live a life of purity, because vice is no longer allowed to flaunt its false colours in the streets, and the stews of immorality are kept out of sight, and must be wilfully sought by those who are bent on ruining soul and body alike.

We do not yield a single point to the opponents of these Acts in the score of interest for the welfare of the women themselves. A great deal of arrant nonsense is talked and written about "seduction" and the "betrayal of virtue." Practically, not a tithe of the young women alleged to be led astray *are* so conducted into the paths of vice. They are either directly trained to evil practices, or their youth is so mismanaged by prudish or ignorant though well-meaning relatives that they go wrong of their own innate wilfulness or depravity. Meanwhile, it is a fact which cannot be gainsaid that where the Contagious Diseases Acts are in operation the path of sin is neither so secret nor so inviting as that which lies open elsewhere. If anyone with a particle of moral instinct will take the trouble of walking through Hyde-park, say from the Marble Arch to Apsley House, down the drive to Albert-gate, and thence across by the cab route to Victoria-gate, and back to the point from which he started, between ten and eleven o'clock any dark but fairly fine night, he will not only cease to doubt the need for police supervision, or to question the wisdom of retaining these Acts where they are already in operation, but he will recognise the policy of extending the Acts to the entire country. We do not for a moment assume that all, or even a large proportion, of the young women who are to be seen misconducting themselves in the parks are actually abandoned. We venture no opinion on that point; but of this we are sure, that if the Contagious Diseases Acts were in operation in London the great majority of these women would be prevented or deterred from parading their seeming lack of decency in a way which distinctly tends to the increase of the evil it is desired to limit and repress. For the sake of the female population as well as of the male, and particularly for the multitude of young persons who are on the brink of an abandoned life, the extension of the Acts is most earnestly to be desired.

Of course no doubt has ever existed as to the value of the Contagious Diseases Acts from a health point of view. The opponents of the Acts have never, so far as we are aware, dared to question this phase of the issue. On the contrary, they adroitly contrive to wrest the fact to their advantage, by contending that we are reducing the penalties of wrong-doing, and thereby playing into the hands of transgressors of the moral law. This is the so-called "religious argument." A truce to so base and blasphemous an abuse of the sacred name of religion. As well might it be contended that by promising forgiveness to the worst of malefactors, and extending His mercy to the Magdalens of the city in His day, the Founder of the Christian religion "offered a premium to vice." This is precisely the line of reasoning adopted by the Pharisees when they marvelled whether the SAVIOUR knew what sort of woman she was who washed His feet with her tears and wiped them with the hair of her head. The Master had no such scruples as those which cripple the charity and pervert the judgment of the opponents of the Contagious Diseases Acts. He went about doing good, even though by so doing He was classed as the friend of sinners. The supporters and promoters of these Acts, among whom we expressly declare ourselves, both on medical and moral grounds, must be content to be misrepresented. We do not wish to smooth or straighten the path of vice, but we desire to clear it of its traps and to facilitate the recovery both from disease and from vice of those who are lured or wilfully stray along that path. We are convinced that the Acts are of high social and moral value, and we would earnestly and warmly endorse the demand which is about to be made to the Legislature for their confirmation and extension.

SOME recent letters in *The Times* have drawn attention to certain obvious discrepancies between the analyses of London water presented monthly to the Registrar-General by Professor FRANKLAND, and those made on behalf of the Water Companies by Messrs. CROOKES, ODLING, and TIDY. These discrepancies are not very great. They relate mainly to the suspended matter, or, in other words, to the turbidity of the water; Professor FRANKLAND frequently recording turbidity due to imperfect filtration at times when the other chemists find the same water clear. The integrity of all the chemists concerned is above suspicion, and although some small allowance may fairly be made for bias due to previous experience or preconceived views, it is probable that the differences arise mainly from the circumstances under which the samples are collected.

A vast improvement has taken place during the last few years in the quality of the water supplied to London by the Companies who enjoy the monopoly. At one time much of it was exceedingly bad. Successive epidemics of cholera were proved to have been propagated by the contamination of the water-supply by the excreta of cholera patients. Elaborate inquiries were instituted, and the result has been that the Water Companies have been forced step by step into the adoption of better methods of collection and filtration; while the sanitary authorities of the basins of the Thames and Lea have, sometimes after protracted resistance, been compelled to divert raw sewage from the rivers which furnish the main supply of the metropolis. At the present moment the water-supply of London is fairly, though not perfectly, satisfactory. No extensive sewage pollution is permitted, and the Water Companies, stimulated by a wholesome fear of penalties, have expended large sums in storage-reservoirs and filter-beds. Probably nearly all that can be done with water drawn from rivers which form the natural drainage of thickly populated and highly cultivated districts has been done, and Londoners may well be thankful for the great improvement which has been effected.

Among those to whom this beneficial change is due, Professor FRANKLAND occupies a foremost place. Dr. JOHN SNOW first showed the activity of water in carrying the germs of zymotic disease. Mr. SIMON, Dr. FARR, Mr. NETTEN RADCLIFFE, and many others, did good work in confirming the theory and rousing public interest in the subject. But until Professor FRANKLAND took the matter in hand no satisfactory means of analysing doubtful waters

was known. His elaborate method of analysis by combustion is now used by all careful chemists. It tells us, with wonderful exactness considering the difficulties, the quantity of organic carbon and nitrogen contained in water. This, with a knowledge of the ammonia, chlorine, nitric and nitrous acids, suspended matter and total solid matter in the water, a determination of the oxygen required to oxidise the organic matter, and a careful microscopic examination, enable a very fair judgment to be formed, not only as to past history, but as to present condition. Professor FRANKLAND has done all this, and more, for the London waters for many years. His views have throughout been consistent, and they are now pretty generally accepted by chemists, as well as by the medical profession. His numerous and elaborate analyses have been tabulated with great care, and many sound generalisations founded on them. They show with great distinctness the progressive improvement to which we have referred.

At the present moment, then, we agree that there is not much fault to find with the London water-supply. If sewage can at all times be excluded and if we are sure that the filtration shall at all times be perfect, or nearly perfect, there remains only the objection that the water is, after all, to a great extent land drainage and the drainage too of land highly cultivated and thickly populated. This objection, although real enough, is not sufficient in our opinion to condemn the water, for there is no evidence that it points to any distinct mischief as a practical consequence. But we confess that we cannot as yet feel much faith in the arguments or statements of the water companies. With regard to the Thames, particularly, the watershed is so great, and pollution, in spite of prohibition, so easy, that complete confidence would, we believe, be credulity. It cannot be too often repeated that the chief danger of a water arises not from its usual but from its accidental and occasional pollution. The mere quantity of organic matter, however accurately indicated by analysis, is but a slender guide after all. The evacuations of a single cholera or typhoid patient would be a far more dangerous contamination than the healthy excreta of an hundred people. From such dangers as this persons who drink Thames water can never be wholly free. We have no wish to exaggerate the risk, but to forget its existence would be foolish and wrong. Our readers, who are so often face to face with the subtle zymotic poison, are not likely to ignore it, but it is right that it should from time to time be brought before the notice of the public.

M. DUVAUX, Minister of Instruction in France, has issued a circular addressed to the directors of lyceums upon the subject of the kind and extent of the teaching best adapted to the minds of the youthful pupils under their charge. In this circular the system hitherto for the most part in vogue of cramming the memory with dates and dry facts is deprecated, whilst the professors are enjoined to devise methods which shall be calculated to draw forth the intelligence of the learners and foster their thinking powers. The "*enseignement*," which is published in *La Semaine Française*, is eminently judicious, and worthy the attention of all who are engaged in the training of youth.

THE death is announced of the celebrated chemist, Professor Wöhler, of Göttingen, at the age of eighty-two.

Annotations.

"Ne quid nimis."

TREATMENT OF THE WOUNDED IN EGYPT.

WE are in a position to contradict the statements which have been made regarding alleged inadequacy of the arrangements for the succour of our wounded at the storming of Tel-el-Kebir, on Sept. 13th. A medical eye-witness, not a member of the Army Medical Department, but attached, during the engagement, to the advanced field hospital, writes as follows:—"In the early morning Tel-el-Kebir had fallen, and we pitched our tents by the canal. We had been out of range of infantry fire, but were exposed to shell fire, especially when the Egyptians caught sight of the siege-train, which advanced consecutively with us and on our right, previous to our taking up a fixed position. About 10 A.M. the wounded began to pour in, and we set to work, operated and dressed until thoroughly exhausted. By 1 o'clock or earlier they were comfortably settled in the boats and horse-boxes ready in the canal, and gently towed down the canal to Kassassin, and others were sent on in the afternoon and evening. I accompanied the boats in the evening, and returned to Kassassin. There I dressed all the wounded officers with antiseptic dressings, and then went on in charge of a team of wounded to Ismailia. Since then some 400 wounded have passed through our hands at the base hospital, and the work has been enormous. However, every one has put his shoulder to the wheel, and the rapidity and comfort with which the wounded have been brought from the field to Kassassin, thence to Ismailia, and finally to the *Carthage*, *Courland*, and *Orontes*, have been beyond expectation. As for the base hospital, I must say that the arrangements, ventilation, and surgical work, would do credit to any London hospital." This statement is substantially confirmed by our special correspondent in Egypt, who telegraphed from Alexandria on Wednesday last that "the medical service was working admirably in spite of almost insurmountable difficulties." It must not be forgotten that in this expedition everything was subordinated to the military exigencies of the campaign; it was imperative that the troops at Ismailia should be pushed to the front with the least possible delay; transport being almost *nil*, the advancing column outmarched all supplies; the sick therefore of necessity suffered with the rest; but the field hospitals were sent forward with all speed, and medical aid for the wounded was available almost as soon as the casualties occurred. The exertions and risks of the Medical Department have been equal to those put forth and encountered by other branches of the Service. We cannot but deprecate hasty and unfounded aspersions being cast on the medical service because the horrors of war entail of necessity some suffering and privation on the sick which are not experienced in times of peace. This fact is, we fear, too often forgotten when the excitement of battle is over.

SANITARY INSTITUTE OF GREAT BRITAIN.

IN his presidential address to the Sanitary Institute of Great Britain, at Newcastle-upon-Tyne, Captain Douglas Galton impressed upon his audience the necessity for securing cleanliness in all the conditions affecting communities, if a high state of public health was to be attained. Many years ago Mr. Simon laid down the rule that uncleanliness is the chief cause of removable disease, and Captain Galton in an interesting review shows how fully recent researches have confirmed that view. Organisms capable of producing disease find the conditions favourable to their development in ill-drained and ill-scavenged towns, in water services and water receptacles exposed to filth, in over-

crowded courts, yards, and dwellings, and in water-logged and marshy soils. Hand-in-hand with the removal of conditions bringing about want of cleanliness of air, soil, or water, there has been a well-marked improvement in health and in preventable mortality, and many striking examples of this were brought under the notice of the Congress. The removal of infection from amongst a people is closely allied to the removal of the filth by which that infection was produced or spread, and hence the experience obtained as to compulsory notification of infectious diseases, and the isolation of the sick by sanitary authorities, found an apt place in the address. Many of the details entered into as to the results of the provision of proper means of sewerage in towns heretofore unhealthy, of securing the utmost possible cleanliness in the air breathed by mechanics and others, and of measures conducing to cleanliness of person and of house, are of considerable interest, although some of the inferences must be regarded as a little strained. Thus where the influence of smoky air on health is illustrated, comparison is drawn between the death-rate in twenty-three large manufacturing towns and that in the rural districts of Wilts, Dorset, and Devon; whereas it must be obvious that many other influences, and some of these of far more importance than the condition of the atmosphere as regards smoke, must have contributed to the results quoted. There is also one portion of Captain Galton's address which, in our opinion, exhibits a departure from the general principles he elsewhere lays down, and that relates to his remarks as to water-supply and the pollution of rivers. Captain Galton would evidently advocate wholesome water, and he deplores the delay in the enforcement of the provisions of the Rivers Pollution Act, but in almost the same breath he says that where a country is sparsely populated the question of the pollution of streams is comparatively unimportant, because a primary dilution with sewage will probably be rendered innocuous after a "run of a certain number of miles," the actual distance being admittedly indefinite; and he then goes on to express the opinion, with regard to waters so contaminated, that "there has never been a well-proved case of an outbreak of disease resulting from the use of drinking water, where the chemist would not unhesitatingly on analysis have condemned the water as an impure source." That this statement is not based on trustworthy evidence we have shown elsewhere in an annotation as to the Bangor water-supply; and we must further add that the implied consent which is here given to the fouling of water-sources and of rivers which may be resorted to for drinking purposes, in the anticipation that no harm will come of it, is in direct opposition to the contention which elsewhere pervades the address, and which is to the effect that all preventable causes of sickness and death should be done away with in the interests of public health.

BANGOR FEVER AND THE WATER-SERVICE.

THERE is every reason to believe that the Bangor epidemic has acquired a firm hold on that town and its immediate vicinity. The fear which we expressed in an early stage of the outbreak to the effect that though the immediate cause of the disease had probably been arrested by the action taken at the intake of the water-service, a further spread might be anticipated owing to the houses being in unbroken communication with an ill-ventilated system of public sewers, has become true to an extent which ought to act as a warning to other towns with similar drainage defects, the disease having already attacked over 500 persons. It is much to be deplored that the Local Board of Health set their own opinion against that of their medical officer of health, and declined to accept his view that water pollution was the real cause of the outbreak. Had they at the first onset acted on the advice of their proper adviser in such matters much sickness and distress might have been avoided. Their action, however, towards Dr. Rees was singularly unfortunate, and it placed him at the moment in a position of great difficulty. Even before the opinion he had expressed as to the cause of the disease was confirmed by Dr. Barry, Dr. Rees strongly maintained the position he had taken up, and this notwithstanding much opposition from those who were ignorant of the subject they were attempting to deal with, and we fully concur in the resolution of sympathy which was unanimously accorded him by the North Wales Branch of the British Medical Association at their recent meeting in Rhyl. We cannot but regret that an effort is still being made to evade the real question as to the infective property possessed by the water-supply at the commencement of the epidemic, and that one branch of science is by some persons being pitted against another for this purpose. We have no wish to undervalue the services of the chemist in connexion with public health inquiries, but it cannot be too widely understood that the results of a chemical analysis of a few samples of water taken from such a source as that at Bangor at a given date or dates can have but little bearing on the question as to whether any portion of the water delivered to the town had or had not on certain occasions, and these different from those at which the samples were taken, received some property for harm from an infected source. Indeed, chemists of high standing fully admit themselves as incapable of detecting such a poison as that of enteric fever, even when it is known to be in a given sample of water; and Dr. Frankland has stated that he has himself mixed the evacuations of a patient dying of cholera with a good water, and having submitted the sample to analysis he has "been unable to detect anything unusual in the water." "Chemical analysis," he goes on to say, "is unable to detect these small quantities of morbific matter which are calculated to transmit disease to people drinking the water." We would urge the Bangor sanitarians to get rid of all possible sources of pollution to what may be made an excellent water-service, and then they need not trouble themselves as to whether foul matters gaining access to the supply can or cannot be detected by one or another method of scientific research.

METROPOLITAN BAKEHOUSES.

A GOOD deal of attention has recently been given to the condition of bakehouses in the metropolis. Until the year 1878 all London bakehouses had been under the control of the vestries, and, working under the provisions of the Bakehouse Regulation Act, the offices of the sanitary authorities had effected considerable improvements in these places. That all bakehouses were in a satisfactory condition no one could pretend to say; they were to a large extent in the occupation of Germans, who were not noted for habits of personal cleanliness, and the powers conferred by the Bakehouse Regulation Act were not sufficient to enforce as perfect a sanitary condition as those who eat bread would wish to find in the places where the bread is made. But in 1878, instead of strengthening the limited powers which the Act conferred upon the vestries, the whole Act was repealed, and its clauses transferred to the Factory and Workshops Act of that year. By this change the duty of inspecting bakehouses was made to devolve upon the factory inspector, but by the repeal at the same time of certain words in the Nuisance Removal Act, a bakehouse under certain circumstances became a nuisance with which the sanitary authorities could deal, but their right to visit every bakehouse because it was a bakehouse was lost. Their duty, however, does not appear to have been clearly understood; in some districts the vestry inspectors visited as before, while in others it was thought that these officers had no more control over bakehouses than over

dwelling houses. This point was decided in the early part of the present year, when the bakers in Clerkenwell refused to admit into their bakehouses the inspectors of the vestry of that district. Appeal was then made to the Home Secretary, with the result that an opinion was given that the bakers were right in their interpretation of the law, and that the officers of the sanitary authority had no right of entrance unless a nuisance existed on the premises. The subject was then brought before the Society of Medical Officers of Health by Mr. Shirley Murphy, who pointed out that in his own district in St. Pancras only about one-third of the bakehouses had been visited by the factory inspector since the passing of the Factory and Workshops Act in 1878, and that there was urgent necessity for the registration of bakehouses, and their control by the vestries under proper regulations. On that occasion several other members of the Society stated that the bakehouses in their districts had not received more attention than those of St. Pancras, and on Dr. Bristowe's suggestion it was decided to make a definite inquiry on this point. Shortly after this meeting a report by Mr. Lakeman, an inspector under the Factory and Workshops Act, brought before the public a number of unsavoury details concerning the condition of these places, and he expressed the belief that his visits would remedy the evils complained of. How this is to come about we do not know. The reports of Dr. Bristowe, Dr. Tidy, Mr. Liddle, and Mr. Murphy show clearly enough that the visits of Mr. Lakeman and his colleagues are not sufficiently numerous to have any control worth the name over the three or four thousand bakehouses situated in the metropolis; indeed, the change of authority is apparently responsible, at any rate in some degree, for the very nastinesses of which Mr. Lakeman complains. The relation existing between the condition of the bakehouse and the health of the public is sufficiently close to warrant the sanitary authorities in claiming some power of control over the former. It is indeed a matter of surprise how this control ever came to be lost. Our metropolitan sanitary authorities are not perfect bodies, but there is sufficient evidence that inspectors under the Factory and Workshops Act are unable to deal with this subject in a satisfactory manner. The best course will be, therefore, for bakehouses again to come under the control of the vestries, who should have increased powers to deal with them.

THE GERMAN APOTHECARIES' CONGRESS.

THE Union of German Apothecaries numbers 2755 members, who are distributed throughout all parts of the empire, and who have in most cases, for local purposes, their own separate organisations affiliated to the central body. This Union has held at Berlin during the present month its eleventh annual congress. Amongst the matters of interest brought forward was the action which has been taken by the Mecklenburg Apothecaries' Union in conjunction with the Mecklenburg Medical Society for the purpose of restraining the sale of advertised specifics. Reference was made to the new edition of the Pharmacopœia Germanica, which contains many changes as compared with older editions; a work is in preparation which will give a summary of these changes. Professor Reichardt, of Jena, furnished some interesting details as to volumetric analysis according to Gay Lussac's system, with special reference to the testing of preparations connected with pharmaceutical chemistry. He remarked that volumetric analysis combines the use of measures with chemical analysis, and has certain advantages over analysis by weight, from the fact that it does not depend upon the exactness of the scale and the skill of the analyser, but upon the visibility of a reaction much more easily observable than is the case with other methods. The funds of the Union amount to about £13,000. There are thirty stipends of £7 10s. per annum granted from the pension fund, and an extension of the pension list from another branch of the revenue of the Union is in contemplation. Out of the general fund for the maintenance of the families of deceased apothecaries the estimated annual grants for 1883 are 100 in number, amounting in the aggregate to £600. The question of the employment of persons without any pharmaceutical training as salesmen in chemists' establishments was discussed, with reference to the regulations introduced this year by the Government of Saxony. It was agreed that such a step was both unnecessary and unadvisable in the interests of the safe exercise of the apothecary's calling, and that if adopted it would lead to further evils by the fact that persons would be introduced into the calling who might afterwards be found injurious to it. Dr. Tschirch read a paper upon microchemical methods of reaction in the service of technical microscopy. Dr. von Waldheim, of Vienna, reported upon the progress which has been made in the preparation of a Universal Pharmacopœia. An international commission of thirty-two delegates (from Europe and America) has been engaged in the task. Its object is the publication of the formulæ of those simple and compound medicinal substances respecting which, on account of the potent nature of their component parts, it is in the interest of the public that when prescribed by a physician of any country they should be dispensed of the same quality and strength by any apothecary in the civilised world. The questions of deodorisation and disinfection were discussed by Dr. Franke of Charlottenburg in an exhaustive paper, which completed the programme. Wiesbaden was chosen for the next annual congress.

THE EMPLOYMENT OF TOBACCO.

IT is probable that no physiologist would contend that tobacco in any form is essential to the well-being of the body. Thousands of healthy men and the vast majority of women never touch it; yet it is certain that its use is becoming daily more frequent, and that when once introduced into a country it is almost hopeless to eradicate the taste for it. It is clearly not necessary for the exercise of the highest intellectual powers. Dante and Chaucer, Michael Angelo and Raphael achieved their triumphs without its aid; and no encomium of its virtues will be found in the wise sayings of Sancho Panza or in the pages of Shakspeare; nor have we any record that Milton composed under its influence, unless, indeed, a habit of smoking in bed led to his not very clearly explained connubial disturbances, and to his tart treatise on divorce. Be this as it may, the eagerness with which it is sought after by its devotees, who allow neither manners, nor the presence of ladies, nor the comfort of others to interfere with their enjoyment, the distress that is occasioned by a temporary failure of the pernicious weed; the difficulty with which the habit of smoking once acquired is broken—indicate clearly enough that it supplies some want in the economy or exercises some influence on the system which cannot be replaced by other means. To many men a poison, to others tobacco is the very staff of life, and to be without it is the extremity of misery. Enforced abstinence from it is to many a convict the severest part of his sentence, and the cunning and deception, as well as bribery, employed to effect its introduction into prisons are well known. An amusing address has lately been delivered by M. Bouley to the Société contre l'Abus de Tabac, on the economical and hygienic aspects of the use of this narcotic. The total value of the tobacco smoked in France amounts, he tells us, to no less than 352,538,000 francs, nearly eighteen millions sterling, which immense sum represents the increase in the taste for tobacco since the year 1830, when this singular habit took its origin from the leisure of the Corps de Garde after the

restoration of the National Guard suppressed by Charles X., M. Bouley points out how smoking has effected an intellectual separation between men and women, conversation being no longer maintained after dinner as in his earlier years. The men are anxious to smoke, and the ladies retire early, to the great detriment, in his opinion, of the mental faculties of both sexes. He is reminded by the present condition of things of Voltaire, who, when condoled with by Piron on the ill-success of one of his comedies, ventured to say, "Well, at any rate, they didn't hiss it." "No," replied Piron, "How could they, when they were yawning all the time?" In France the State promotes smoking, since each soldier receives, every ten days, 100 grammes of tabac de cantine, on payment of the extremely moderate sum of fifteen centimes. It is given in the belief that it constitutes to some extent a substitute for food and affords relief to, or at least prevents grumbling at, the monotonous character of the diet. As long ago as 1854, Marshal St. Arnaud, when at Varna, wrote to the Intendant of the War Department: "Have you sent tobacco for the troops? It is very important, for tobacco is undoubtedly the best means we possess to prevent attacks of nostalgia and to alleviate the miseries of the bivouac." General Brack, again, in his "Traité des avant Postes," strongly insists that a taste for smoking should be cultivated in the light cavalry, on the ground that it keeps him awake, employs spare moments that would otherwise be employed in thinking, and keeps him near his horse, which he sees has its forage and is not abused. "How comforting it is," he adds, "in the early morning; it drives away sleep and renders the rain less cold, thirst less severe." The pipe, again, demands a steel and some tinder, and the implements for the production of the bivouac fire are therefore always at hand. But there is another side to all this. Dr. Blanchet, an army surgeon, writes that "constant association with the soldier, and inquiring into the effects of smoking, has taught him that the illness of many men is to be traced to the abuse of tobacco alone. Ulcers on the lips, in the mouth, on the tongue, in the nose, necrosis of the maxillary bones, are not uncommon results of its use. Others suffer frightfully from gastralgia, gastritis, and enteritis; others from vertigo, mental debility, and even transient attacks of mania." Who is in error here, the general or the surgeon? What have our English surgeons to say to it? In moderation, as Sir B. Brodie said long ago, it probably acts as a calmative to the nervous system, especially when in a condition of excitement and worry, and its abuse only should be deprecated.

THE POVERTY THAT HIDES.

THE poor are always with us, and yet we know them not. The poverty that parades its needs and is perpetually asking for "relief" is not the real indigence that true humanity should be most solicitous to help. It is the poverty that hides which the genuine philanthropist should search out and succour. In this great city there are thousands who know the bitterness of unsatisfied hunger, who endure the misery of that most blighting of all cold, the chill of starvation; who suffer torments of mind-worry and wretchedness; and who are, in short, dying of destitution while they keep up an external appearance of respectability and even of content. Medical men who are admitted to see life stripped of its tinsel, especially those who have to deal with the mental phase of human nature at close quarters and in its weakest moments, when pretence is no longer possible, have this hidden poverty brought painfully home to them. The outside public has no conception of the extent and depth of the impecuniosity that prevails, and the bitter aching void that is unsatisfied. We pity the so-called "starving poor": Heaven help the starving "well-to-do" and even seemingly "wealthy"! It is a grim fact that there are at this moment members of the professions, tradesmen, clergymen, and educated persons of all classes and grades of society, who are poorer and more at a loss how to feed themselves and their families than the average "poor" upon whose recognised needs society is wont to exhaust its charity. Would that there could be a "secret service fund" managed by a committee of trusted philanthropists who would not need to publish their doings to the world, and who had the wisdom to conduct their mission of mercy with the tact that genuine benevolence always demands. The sufferers of whom we are speaking, and for whom we would plead, not only affect, but feel, that pride in life that absolutely deters them from making their circumstances known. They would, and do, die rather than confess the urgency of their poverty. When we read of cases of "starvation" that attract notice by the finding of coroners' juries, and disclosures made before the magistrates, we wonder how many in this ostentatiously charitable community of ours even suspect the existence of the poverty that hides.

THE INFLUENCE OF SMALL-POX HOSPITALS.

IN connexion with this subject, which we commented on last week, we learn that some important experience has been acquired at Rochdale. Small-pox became epidemic in the borough during the latter half of 1881, and by the first week in December as many as 440 cases had occurred in 310 houses. At that date a disused workhouse was taken over by the corporation as a small-pox hospital; 163 patients were admitted at intervals, and soon after this a series of complaints were addressed to the Local Government Board by persons residing in the vicinity of the hospital, to the effect that a marked spread of the disease had been brought about in the immediate neighbourhood of the hospital buildings. Dr. Thorne Thorne was instructed to make inquiry into these allegations, and his report has been forwarded to the corporation. The inquiry instituted consisted partly in a detailed investigation of the circumstances of the outbreak, and partly in a public inquiry with a view of eliciting all available information on the subject. The report traces the course of the epidemic during the twenty weeks ending April 29th, 1882, and during which any injurious hospital influence might have been in operation; and it compares the incidence of the epidemic on the various parts of the borough during this period with that which obtained during the prevalence in the twenty-six weeks before the use of the hospital. In order to secure accuracy in this comparison, the corporation, at Dr. Thorne's suggestion, paid a fee to all medical practitioners in and around the borough with a view of securing a return of all cases of small-pox which had occurred. As the result, it appears that 310 houses, out of a total of 17,000 in the whole borough, were attacked before the hospital was established, and 334 after it came into use. The rate of attack per 100 houses was, however, remarkably different, in point of locality, during the two periods in question. Before the hospital was provided it was 1·82 for the entire borough, and 0·36 in 827 houses lying within a quarter of a mile of the then empty hospital buildings; but after the hospital came into use the percentage of houses attacked within the quarter-mile area rose to 5·56 as opposed to 1·96 for the whole borough. In other words, to quote Dr. Thorne's report, "Whereas the rate of incidence upon the borough as a whole remained much the same during the two periods, it was more than fifteen times greater on the houses lying within a radius of a quarter of a mile round the hospital after that building was used for the reception of cases of small-pox than it had been before." It is further shown that this rapid diffusion of the disease in the vicinity of the hospital during the period referred to was not due to any general extension of the infection in that direction, but that it occurred quite independently of any such

cause. The details of hospital administration appear to have been so exceptionally lax that it became impossible to discriminate between the several methods by which influence for harm might have been brought about; and it is implied that in the face of so many obvious sources of uncontrolled personal infection which were allowed to come into operation, no conclusion could be arrived at as to whether any, and if so how much, of the injurious influence could have been brought about by aerial conveyance. The report, however, shows distinctly that the aggregation of large numbers of small-pox patients in the neighbourhood of dwellings is, from some cause or other, attended with results which do not follow on the isolation of patients suffering from the other infectious fevers.

THE TREATMENT OF ENLARGEMENT OF THE SPLEEN.

INJECTION of drugs into the substance of the spleen has been lately tried as a means of obtaining a reduction of the bulk of the organ in cases of hypertrophy. Hammond obtained a rapid reduction in size by the injection of ergot. Kussmaul, of Strasburg, endeavoured to lessen the size of the organ by simple puncture with a large needle, hoping thus to produce a hæmorrhagic infarct which might cause some atrophic shrinking, and by repetitions of the process a considerable reduction in size of the organ. The result, however, disappointed his expectation, for no marked effect was produced by fourteen punctures. Galvano-puncture was tried four times, with no better result. A parenchymatous injection of ·1 gramme of sclerotic acid was made, and death followed in six hours. At the autopsy, no trace of hæmorrhagic infarct could be found in the organ; only around one of the punctures was there a reddish zone. The patient was suffering from leucocythæmia, and, whether death was caused by the sclerotic acid or not, the lesson is certainly taught that injections should be made into the substance of the spleen in that disease with extreme caution. Mosler, of Greifswald, has tried injections in other forms of enlargement with success, but prefers Fowler's solution to ergot, and has found those cases most suitable in which the spleen is hard. He thinks it well, also, to apply ice to the splenic region for some hours before an injection is given. A remarkably good result has been reported by a St. Louis physician, Dr. Emanuel, of the internal use of ergot. The patient was a gentleman forty-three years of age, whose spleen was so much enlarged as to fill almost the whole of the abdominal cavity. It was firm and tender, and the patient affirmed that the swelling had existed for two weeks only. There was no history of malarial disease. Thirty drops of Squibb's extract of ergot were given three times a day, and the dose gradually increased to sixty drops. In three days the spleen had lost much of its hardness, although its size remained nearly the same. A week later, however, it was distinctly smaller; every day the diminution went on, and in a few days more the spleen was reduced to nearly the normal size.

THE PROTECTIVE POWER OF VACCINATION.

ANTI-VACCINATIONISTS have been desirous to find in the interesting quarrel which is now going on in Switzerland between the Cantons and the Federal Council evidence of the growth of an increased objection not only to compulsory vaccination, but to vaccination itself. It has, however, been clearly shown that the dispute which has arisen has really no reference to vaccination at all, but is simply an unwillingness on the part of the Cantons to allow the Federal Council to legislate on subjects which have until recently been solely under the control of individual Cantons. There is, therefore, nothing in recent events in Switzerland to lead to the belief that vaccination is less valued than formerly. That public opinion should not be equally strong upon this or any other subject in every part of Switzerland or England is no matter for surprise, but the question of the extent to which individuals are protected against small-pox is one which does not alone concern the particular town in which they are resident, and cannot therefore in our country, where the railway gives such ample opportunity for the communication between one town and another, be wholly entrusted to local authorities. A correspondent, Dr. Mitchell, writing from Meudon in France, urges that the real issue involved in the difference of public opinion with regard to vaccination is, whether vaccination really protects, and he offers to join in an experiment by which he and an unvaccinated person shall submit to the inoculation of small-pox. In a letter to *The Times* some two years ago, Dr. Cory pointed out that this was the simplest way of proving by direct experiment the amount of protection afforded by vaccination. There are legal difficulties in the way of intentionally carrying out this proceeding in England, but the unintentional inoculation with small-pox matter of vaccinated attendants in small-pox hospitals is a matter of daily occurrence; and although an occasional local abscess is produced, the fact that these people escape small-pox is well known. It can hardly be expected that people who are unwilling to accept this evidence, which is constantly before their eyes, will be convinced by other experiment, however definite in character it may be.

CHLOROFORM CATASTROPHES.

TWO fatal accidents in the administration of chloroform have recently been added to the list of the lamentable records of chloroform catastrophes. They were very different in character, and one of them ought not, in fairness, to be attributed entirely to the anæsthesia. This was the case of James Butterworth, who (as the inquest held on him on September 2nd showed) was admitted into St. Bartholomew's Hospital with fracture of the jaw. Death occurred during the administration of the chloroform, but at the post-mortem it was found that the larynx had been injured, and that there was extravasation at the base of the tongue, and accumulation of blood in the trachea. In the second case the death occurred at the London Hospital on September 4th, also during administration. In this instance cancer of the tongue was the disease for which the operation was intended. The death in the first of these cases was evidently largely due to asphyxia, and we should be inclined to excuse chloroform as the destroying agent, while we should admit that for the particular operation it was a better agent than ether. In the second case the phenomena were those purely of chloroform death during the stage of excitement and muscular contraction. There were the usual sudden arrest of the heart, lividity of the face, cardial apnœa, and collapse.

THE NOTIFICATION OF DISEASE.

THE following resolution has been passed at the meeting of the Social Science Association by a majority of forty-one to sixteen:—"That this department considers it highly desirable in the public interest that the Legislature should at the earliest opportunity pass a general enactment for the compulsory notification of infectious diseases, on the principle of the Bill introduced into the House of Commons in the past year by Mr. Hastings." The subject was introduced by Mr. W. H. Michael, Q.C., who condemned the opposition of certain members of the medical profession to the proposed immediate notification of disease. Dr. Littlejohn, of Edinburgh, strongly supported the system practised in Edinburgh, of which he said there were no complaints. The law there requires that every medical practitioner practising within the burgh shall, within twenty-four hours

of the same coming to his notice, report to the medical officer of health every case of cholera, typhus, typhoid, diphtheria, small-pox, scarlet fever, and measles. The duty is thrown on the medical man alone. This view was opposed by Dr. Brookhouse of Nottingham, Dr. E. Whittle of Liverpool, Dr. Jacob of Dublin, and others. Dr. Cameron, Medical Officer of Health for Dublin, Dr. Alfred Hill of Birmingham, Dr. Ransome of Nottingham, Dr. Hatherley, and others supported notification with qualification. We adhere to our opinion that the duty of intimating should devolve on the parent or householder. But we must enter our protest against the piecemeal way in which this principle is being put into legislative force by furtive insertion in local Bills. If the notification of disease is to be of any use, it must be made universal and compulsory, and if the State or any local authority insists on restriction of business and isolation of cases, it must be prepared to compensate.

ISOLATION AND PAUPERISM IN THE METROPOLIS.

NOTHING can be more unfortunate than the intimate connexion which, in the metropolis, exists between the isolation arrangements for infectious diseases and pauperism. The other day a man who lived in the Southwark-bridge-road, and who occupied a single room with his wife and two children, applied to the magistrate for help in the removal to hospital of his wife, who was suffering from small-pox. He was referred to the relieving officer, and after a day's delay he returned to explain that, as he was not a pauper, the officer in question would have nothing to do with him. Next came the statement of the vestry sanitary inspector, who said he could remove no one unless four guineas were forthcoming, and the vestry, he alleged, had no funds to meet such cases. Anything more disgraceful can hardly be conceived, and the magistrate was well within the limits of propriety in calling the whole affair "monstrous." The vestry is the sanitary authority for the district; one of its principal duties is to care for the public health within the limits of its jurisdiction; the inhabitants of the district are rated for this very purpose; and yet here we have an officer of that sanitary authority disclaiming all responsibility when a patient is lying ill of small-pox in what is described as a "densely populated neighbourhood," and needs removal to hospital in order to save the spread of infection to other members of the community. Well may London demand some alteration in the arrangements for its local government in matters concerning public health.

THE SOCIAL SCIENCE CONGRESS.

THE twenty-fifth session of the National Association for the Promotion of Social Science has come and gone. In the Health department papers of more or less interest and importance have been read, amongst which may be enumerated the following:—Infant Mortality, by Mr. T. M. Dolan; Administration of Hospitals, by Dr. Gilbart Smith; Small-pox Epidemics as affected by the states of War and Peace, by Dr. William A. Guy; Notification of Infectious Diseases, by Mr. W. H. Michael; the Superior Prophylactic Power of Animal Vaccine against Small-pox, by Dr. Drysdale; Revaccination, by Dr. Whittle. Some of these questions will afford matter for comment next week. Meanwhile, it is somewhat depressing to reflect on the multiplicity of papers on medical topics which are produced at congresses, convened here, there, and everywhere, for almost every conceivable purpose, read to audiences who are for the most part but imperfectly capable of estimating their merits, and introduced at times and under circumstances unfavourable to the proper consideration and discussion of their subject-matter.

MICROCOCCI IN MEASLES.

WE mentioned a few weeks ago the purport of a paper lately read by Dr. Keating before the Royal College of Physicians of Philadelphia on the above subject. The full text of the paper has been published in the *Philadelphia Medical Times*, and the interest of the subject should be sufficient apology for dealing with it again. It may, however, be remarked that four years ago Drs. Braidwood and Vacher communicated to the Pathological Society of London a paper upon the same subject, in which they described highly refractile spherical bodies in the breath of measles patients, and similar bodies, together with rod-shaped, fusiform and ovoid forms, in the corium, lungs, and liver. They pointed out the resemblance of these bodies to the vaccinia-micrococcus, and referred to some earlier work by Hallier and G. Simon in the same line. At the time, if memory serves us aright, these observations of Braidwood and Vacher were not followed up, and, perhaps owing to the fact that bacterial pathology was then less in vogue, were not much accepted. Dr. Keating's research seems, however, to substantiate their facts, although he limits his microscopical investigations to the blood. These investigations were made by Dr. Furniss, who had previously carried out a similar research in diphtheria, in association with Dr. H. C. Wood. The blood was examined daily and micrococci were found in the malignant cases only, not in those of a mild type. Dr. Keating gives notes of eight cases, all but one of which were fatal. The blood was examined after death in most of the cases, and micrococci were found not only in the liquor sanguinis, but also in the substance of the white corpuscles. In some of the cases notes are recorded of observations made on the blood during life nearly every day. In the fatal cases death occurred from cardiac thrombosis and pulmonary congestion, attributed to clogging of the capillaries by the micrococci and the destruction of the corpuscles. Believing that in this fatal type of the disease the condition is one of blood-poisoning, and that the occurrence of micrococci can thereby be explained as resembling that found in erysipelas, puerperal septicæmia, and diphtheria, Dr. Keating sought for the most active germicides as a basis of treatment. In brief, alcohol in large doses (it was given in the form of whisky) was found to be most efficacious, and its employment was suggested by its known action in checking the development of micrococci in culture solutions.

UNCERTIFIED DEATHS.

THE Wandsworth District Board of Works has recently issued a report upon the health and sanitary condition of the union and district, and of its several parishes, during 1881. The report calls attention once more to the evil of uncertified causes of death, of which 125 were registered during the year within the district; these were equal to 3·3 per cent. of the deaths registered. Assuming that this proportion is fairly representative of the mean proportion of uncertified deaths in England, attention is called to the extent of the consequent invalidation of the Registrar-General's figures, and the dangerous facility which is thus afforded for the perpetration and concealment of secret crime. This defect in our present system of registration is undoubtedly serious, and calls for a remedy; but it is scarcely correct to speak of it as an "increasing laxity in the registration of deaths," inasmuch as the proportion of uncertified deaths has continuously declined in recent years. Neither is the proposed remedy, "the employment of medical investigation in all instances in which the cause of death has not been certified by a registered medical practitioner," so simple or easy of application as the author of the report appears to imagine. There can

be no question about the desirability of providing some system for the verification of the cause of death of persons not attended during their last illness by a registered practitioner. The Wandsworth report, however, ignores the difficulties in the way of the realisation of the suggestion. There is very far from agreement at present as to who should be entrusted with the medical examination; and it is lost sight of that while in Wandsworth the proportion of uncertified deaths is but 3 per cent., the proportion exceeds 20 per cent. in some parts of Wales, where the population is sparse, and the difficulty in the way of getting medical attendance great. A large proportion of uncertified deaths in town districts consists of cases of premature birth in which the only attendant is a midwife. These difficulties must, however, ere long be fairly faced, although the provision of a satisfactory remedy will scarcely be helped by simply ignoring the obvious difficulties which stand in the way.

DEATH OF SURGEON-MAJOR F. R. HOGG.

WE much regret to announce the death on the 21st instant at Morar, Gwalior, East Indies, of Surgeon-Major Francis R. Hogg, of the Army Medical Department. Dr. Hogg entered the service in August, 1858, and became surgeon-major in 1873. He served for many years in the Royal Artillery, and had charge of the Female Hospital at Woolwich for nearly eleven years; his duties there brought him intimately in connexion with the soldiers' families of the garrison, by whom he was universally beloved and respected for his untiring care and kindness in sickness or in trouble. It was owing to his indefatigable exertions at Woolwich that he was permitted, as a special case, to hold the appointment for so long; and his premature death will be regretted by numerous officers, men, and women of the Artillery, as well as by his own brother officers, by whom he was greatly esteemed. Dr. Hogg had only recently returned to India, and succumbed to disease of the heart and kidneys at the early age of forty-six.

LOCAL OUTBREAKS OF SMALL-POX IN PROVINCIAL TOWNS.

SINCE the remarkable and generally fatal epidemic of small-pox in 1871–2, nearly all the large provincial English towns have been exceptionally free from small-pox mortality. Notwithstanding the division of opinion with regard to the influence of small-pox hospitals upon the prevalence and fatality of the disease in London, there can be little doubt that the existence of hospital accommodation for the isolation and treatment of infectious diseases in most of our large English towns affords the most rational explanation of their recent freedom from epidemic small-pox. Dr. Goldie, the medical officer of health for the borough of Leeds, in his last monthly report gives some interesting particulars respecting a distinct outbreak of small-pox in that town during last month. This outbreak, which necessitated the prompt removal to the Borough Hospital of thirteen cases within a few days, occurred within a limited area; the drainage within this area is said to be defective, the streets are for the most part unpaved, while offensive accumulations result in and around the street gullies. The first case, and the one that appears to have been the source of infection, was that of an artisan, who was treated at home, without any special care being taken either to isolate or disinfect the clothing; Dr. Goldie states, moreover, that this small-pox patient is reported to have entertained his friends in his house, and thus to have been the direct means of infecting thirteen persons afterwards removed to hospital. When the medical officer first visited this case he found the mother engaged in washing the infected clothing, and, without any attempt at disinfection, hanging the clothes across the street. If, as is now probable, Leeds once more escapes a small-pox epidemic, notwithstanding this sharp outbreak, it is only reasonable to attribute such a result to the recent establishment of a Borough Hospital for Infectious Diseases.

A POISON FOR TUBERCULAR BACTERIA.

A PAPER was recently communicated to the Paris Académie des Sciences, by M. de Korab, on the action of helenine on the bacteria of tuberculosis. The facts mentioned deserve notice, although we fear that the hopes suggested are too bright to be realised. The bacilli were cultivated in bovine blood serum, which was daily heated for a week to effectually sterilise it, and was then coagulated by a temperature of 65° C. A guinea-pig having been rendered tubercular by inoculation and inhalation, small tubercular masses were taken from it, introduced into ten tubes containing the tubercular serum, and the tubes plugged after some helenine had been poured into three of the tubes. All were kept at a temperature of 37° C. for a week, and at the end of that time inoculation experiments showed that the organism in the tubes to which the helenine had been added no longer caused tuberculosis, which was readily produced by the contents of the other tubes.

THE DISCHARGE DEPOT, NETLEY.

THE discharge depôt for time-expired soldiers arriving from foreign stations, which has been for many years located in the Royal Victoria Hospital, Netley, has been transferred to Fort Brockhurst, Gosport; the staff detailed for it consists of a commandant, paymaster, paymaster-sergeant's clerk, sergeant-major, and three clerks and writers. The removal of this depôt will be a great boon to the hospital, as during the trooping season the arrival of large parties of time-expired men not only took up accommodation required for the patients and men of the Army Hospital Corps, but their presence at times gave rise to confusion and irregularity.

MR. STEER, assistant medical officer and dispenser to the St. Olave's Union Infirmary, has been attacked with typhoid fever, contracted from a patient he was attending in the institution. Are the salaries of workhouse medical officers estimated in view of the risk of contagion involved in their duties? We trow not.

THE Swiney Lectureship on Geology, just vacated by Professor Alleyne Nicholson, whose term of office had expired, has been bestowed by the trustees of the British Museum on Dr. Ramsey Heatley Traquair, F.R.S.E. The office is tenable for five years, and is of the annual value of £144.

SMALL-POX ravages at Cape Town are reported by telegraph to be worse than ever. There have been 2000 cases, of which 600 have been fatal, mostly among natives, but the disease is spreading among the whites. It is stated to have also broken out among the military.

FOR the vacant post of Surgeon to the Fire Brigade (Southern Division) there would seem to be a keen competition. The names of twelve candidates are announced, that of Mr. Neale, late medical officer of the *Eira* expedition, being amongst them.

INTELLIGENCE has been received of the death of Georges Leclanché, at the early age of forty-three. The deceased chemist was the inventor of the battery to which his name is attached, and which is extensively employed both by physicians and electricians.

WE regret to announce the death, at his residence, Cavendish-place, of Mr. J. T. Clover, Lecturer on Anæsthetics at University College Hospital. We hope to give an obituary notice of the deceased gentleman in our next number.

THE Secretary of State for War has appointed William Beale Wallis, Esq., L.R.C.S.I., Brigade Surgeon, to be Visiting Surgeon at Colchester under the Contagious Diseases Acts, 1866 to 1869, vice W. W. Weld, Esq., resigned, from the 25th instant inclusively.

THE *Sanitary Engineer* (New York) of Sept. 14th reproduces the plans and description of the temporary hospital structures suggested by the New York State Board of Health, to be used for the care and isolation of patients suffering from small-pox and other infectious diseases.

THE spread of small-pox in the Black Country has determined the Town Council of Wolverhampton to take steps to provide accommodation for the immediate isolation of any cases that may come to their notice.

MR. LUND has, on account of failing health, resigned his post as surgeon to the Manchester Royal Infirmary, and has been appointed consulting surgeon to the institution.

JAMES THOMPSON, M.D., has been elected Honorary Treasurer of the Irish Graduates' Association.

SCARLET fever is very prevalent at Accrington, and is greatly interfering with the regularity of school work.

Pharmacology and Therapeutics.

PHOSPHORUS.

MEYER has been experimenting on the action of phosphorus on frogs and rabbits, employing an emulsion with gum, or a solution in 100 parts of olive oil, the alkaline reaction being carefully neutralised with carbonate of soda. A milligramme of phosphorus introduced beneath the skin caused in half an hour a transient increase in the liveliness of the animal's movements. Ten milligrammes caused at first excitement, but the animal died in the course of one or two days. No very striking poisonous effects were observed, however, even from the use of larger doses; a diminution of motor power and sensibility came on only after a considerable interval. Once set in, however, the symptoms rapidly increased, and death usually resulted in an hour. No tetanic cramps were observed, and the muscles and nerves after death preserved their normal irritability. The liver, as a rule, presented normal characters, and the heart was distended with blood, slight pulsation continuing in the auricles. Atropine had no influence upon it, but chemical excitants of muscle, salicylate of physostigmin, or camphor, aroused the heart to renewed activity. Further experiments led to the conclusion that phosphorus caused a paralysis of the automatic nerve-centres, and later affects the muscular tissue itself. In rabbits, also, no clonic muscular contractions were observed in phosphorus poisoning, but a slow steady diminution of the blood-pressure, which sank to zero in consequence of the arrest of the action of the heart. The vaso-motor nerves were not at all affected. Cases of phosphorus poisoning in man have been observed in which, without any considerable disturbance of the general system or of the central nervous system, death occurs suddenly. Meyer is inclined to regard these as cases of paralysis of the heart, for he succeeded, by introducing phosphorus directly into the circulation, in causing complete paralysis of the heart, before any pathological change had been produced in the heart or liver which could be discovered after death. To exclude the possibility of embolism in these cases, special precautions were taken. An analysis of the blood of rabbits which had been poisoned by phosphorus showed that the amount of carbonic acid which could be extracted had diminished from 50 to 80 per cent., and he thus corroborates the diminution in the process of oxidation in the body and the increased destruction of albuminous bodies.

CARBOLIC ACID IN TYPHOID FEVER.

M. Ramonet has recently published an account of the results he has obtained in Algeria by treating typhoid fever with carbolic acid, and the method of its use. Forty-one cases were thus treated, seventeen of which were severe, and two died, giving a mortality of five per cent., which must, under the circumstances, be considered remarkably low. The treatment consisted in injections of one gramme of crystallised carbolic acid in 150 grammes of water at the temperature of the room. One injection was given daily in mild cases, two in cases of greater severity, three in severe cases. A few drops of laudanum were sometimes added to help the retention of the enema. The time preferred for the injections was 11, 4, and 9. The injections were followed by a fall in the temperature, which might amount to 2°, and by a manifest diminution in the cerebral symptoms, headache, noise in the ear, and stupor, which might last for several hours. It is suggested that the favourable result is due in part to the antizymotic action of the carbolic acid. The dose should not exceed four grammes a day. The larger doses given by Desplats, 12 or 14 grammes, are harmful by their indirect effects. A tonic and stimulant treatment should always be associated with that by carbolic acid.

HYDROFLUORIC ACID IN DIPHTHERIA.

M. Henri Bergeron has advocated the use of hydrofluoric acid in the treatment of diphtheria as not only giving a better result than other remedies, but also as preventing the extension of the disease. A piece of fluorspar and some sulphuric acid are placed in a lead vessel, and this is then heated in a salt bath, which is kept at a temperature of 90° or 100°; an acid vapour, easily borne, is disengaged. The apparatus is then placed on a table near the patient, who breathes it with uncovered mouth. It injures glass, which must therefore be greased, to protect it, but the vapour has no appreciable noxious action on healthy individuals. The apparatus is refilled five times in the twenty-four hours. The cases treated in this manner were forty, and three only died.

OXALATE OF SODA.

As a result of a series of experiments on the action of the oxalates, R. Koch concludes that the neutral soda salt, injected under the skin in the form of a two or three per cent. solution, causes in frogs chiefly fibrillary twitchings of the voluntary muscles, followed by general paralysis, which comes on more or less gradually according to the dose of the poison. Excised muscles immersed in the solution present the same fibrillary contractions. In a nerve-muscle preparation the irritability of the nerve is quickly lost. Hence it is assumed that the poison in the blood produces paralysis primarily by affecting the muscles and the nerves. An increase in the number of the heart's contractions was not observed, but an increase in the force of the contractions, especially of the ventricles, was constantly observed. The injection of small quantities of oxalate of potash (one or one and a half cubic centimetres of a three per cent. solution) into the jugular vein of cats and rabbits caused only transient changes in the blood-pressure curve, whether the animals were or were not under the influence of curara. Larger doses, however, caused a considerable increase in the frequency of the pulse and of the blood-pressure. Still larger doses injected into the jugular vein caused the blood-pressure to fall to zero, in consequence of the arrest of the heart's action in diastole, but the same quantity injected under the skin only produced transient symptoms. The action of oxalate of potash on frogs and cats was similar to that of the soda salt. Some experiments were also made with oxalic ether, but no effect was produced which could be ascribed to the oxalic element.

THE SUBCUTANEOUS INJECTION OF APERIENTS.

Dr. Hiller of Berlin has experimented on the subcutaneous use of certain purgatives, chiefly aloin and substances obtained from colocynth. To produce a mild aperient effect (associated with some griping) it was necessary to use one or

two syringefuls of a solution of one part of aloin in eight of glycerine. The action of the bowels took place about six or eight hours afterwards. Thus the dose required and the time of its action were nearly the same as when given by the mouth. Merck's "pure colocynthin," a glucoside of colocynth, and "citrullin," a resinoid of the same, had a very drastic purgative action when given internally in a dose of five to ten milligrammes. A half or whole Pravaz syringeful of a one per cent. solution in equal parts of alcohol, water, or glycerine, caused several loose stools in from four to six hours after the injection, with sharp colicky pains. The same dose was effective in half an hour when given as an injection into the bowel, dissolved in ten centimetres of water, and Hiller prefers this mode of administration when an energetic and quick purgative is required, as in uræmia. The injection into the bowel caused no pain, whereas beneath the skin it caused prolonged burning. It was found also that the officinal extract of colocynth was also efficient in a solution of one in thirty, injected under the skin or into the rectum. Hiller's conclusions are thus decidedly unfavourably to the subcutaneous injection of aperients.

THE PASSAGE OF DRUGS THROUGH THE LIVER.

Experiments have been made by Peiper on dogs provided with a biliary fistula, to ascertain whether certain drugs introduced into the alimentary canal reach the liver. In order to avoid the action of the gastric juice on the substances employed, they were injected into the bowel. If iodide of potassium were injected, a long interval (six or eight hours) was found to elapse before its presence could be discovered in the bile. Salicylic acid, given in an aqueous solution, of the strength of 1 to 300, could not be discovered in the bile, but if a more concentrated solution were employed its presence was evident at the end of half an hour. Carbolic acid seems to pass through the liver only in extremely small quantities. Both ferrocyanide of potassium and cyanide of potassium gave only negative results, although the former was found by Claude Bernard in the bile of animals after he had injected it into the veins.

CHLORATE OF POTASH.

On the Continent chlorate of potash is given in larger doses than in this country, and sometimes with dangerous consequences. Isambert has lately shown that if a solution of this salt be injected into the blood the heart may be arrested suddenly in diastole without any precursory symptom. Not long ago four children died in France from the effects of a chlorate of potash mixture which some sisters of charity were accustomed to distribute as a remedy for sore-throat. An investigation of the subject was made by MM. Brouardel and Lhote, who arrived at the conclusion that frequently repeated small doses may have fatal results. The symptoms of poisoning may be of four classes: bluish spots on the skin, sometimes a general cyanosis, sometimes an icteric tint; gastro-intestinal disorders, especially diarrhœa and green vomit; an increase in the quantity of urine, if the amount of chlorate taken was small, but a diminution if a large dose had been absorbed, and the diminution may go on to temporary arrest, followed by hæmaturia; lastly, there may be symptoms of nervous collapse and coma preceding death. Happily the toxic dose of the drug is not very small, for Germain Sée has given more than an ounce in the course of a single day without indications of danger.

BORACIC ACID.

Neumann has, in view of the extensive use of boracic acid, instituted experiments to ascertain more precisely its physiological effects. A dog of the weight of fifteen kilogrammes presented no marked symptoms from a dose of five or six grammes, but a marked fall in internal temperature was produced. Larger doses caused also vomiting and diarrhœa. A 3 per cent. solution injected into the pleural or peritoneal cavity did not cause inflammation of the serous membrane; but whenever the quantity injected exceeded certain limits, the animals died from paralysis of the motor nerves and muscles. Results of identical character were also furnished by experiments on rabbits and young pigs. Boracic acid was given to horses affected with glanders up to forty-five grammes (¾ a dose), and the nasal ulcerations were treated with the same substance. A transient amelioration in the condition of the animals was the result, but none recovered. Boracic acid may thus be regarded as not only an antiputrescent, but also an antipyretic, comparable to carbolic acid.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kensington (Urban).—It appears from a report recently issued by Dr. Dudfield, the medical officer of health, that the health of Kensington, judged by its mortality statistics, was exceptionally satisfactory during the four weeks ending August 12th. The annual death-rate, although showing a slight increase upon the still lower rate in the preceding month, did not exceed 13·6 per 1000, and was 4·9 below the mean rate for the whole metropolis during the same period. It would be interesting to know how far the death-rate during the summer holiday period in such metropolitan suburban districts as Kensington is affected by the migration of no inconsiderable proportion of its population to holiday resorts. However this may be, the low gross death-rate was not the only evidence of satisfactory health in Kensington during the four weeks under notice; the district was comparatively free from zymotic fatality, as only 34 deaths were referred to the principal diseases of this class, being 30 below the corrected average for the season. This was mainly due to the exceptionally small fatality of diarrhœa, which caused but 12 deaths, or 32 fewer than the corrected average number. Nine deaths were referred to measles, 5 to diphtheria, 4 to whooping-cough, and 2 to enteric or typhoid fever. The 2 latter cases were both of children, and with regard to the 5 deaths attributed to diphtheria, Dr. Dudfield expresses doubt whether they were really the result of this disease, as one case he unhesitatingly declares to have been scarlet fever, and adds, "it may well be, moreover, that some of the other cases were really cases of croup." It is evident that fatal diseases in Kensington, as elsewhere, are not always carefully or correctly diagnosed, and we fear that the useful and valuable influence of medical officers of health in improving the quality of medical certificates of the cause of death is almost neutralised in London by the fact that nearly all medical officers of health are engaged in private practice. Dr. Dudfield dwells in his report upon several recent cases in Kensington illustrative of how infectious diseases are spread; in two of these convictions were obtained. We are glad to see that only small fines were inflicted, as such prosecutions, infinitely useful from an educational point of view, would defeat their own purpose if the sentences were heavy enough to make martyrs of the offenders. We should like to make two suggestions to Dr. Dudfield with regard to his useful monthly report. In the first place, it is a serious drawback that the report, instead of dealing with a natural month, or rather the four or five weeks most nearly corresponding with the month, relates to an arbitrary period from the middle of one month to the middle of the next; this detracts seriously from the value of the report for comparative purposes. In the second place, the utility of the report would be increased by the insertion of a table showing the more usual statistical features of such reports, which could be kept standing from month to month during the year, with the addition of a few fresh figures for the most recent month dealt with in the report.

St. Pancras.—According to Mr. Shirley Murphy's annual report, the estimated population for St. Pancras in 1881 was 236,209, and the increase during the last decennial period was only at the rate of 0·66 per cent., instead of 1·1 per cent. during the previous period. This has been to a considerable extent due to the demolition of houses on an area acquired by the Midland Railway. The increase in the number of inhabited houses has not kept pace with the increase of population, and the average number of persons to each inhabited house amounts to 9·5, as opposed to 9·1 in 1871. The birth-rate for 1881 was 33·6, and the death-rate 22·0 per 1000. Small-pox became epidemic in the parish during the year; and a detailed description is given of the admirable small-pox encampment which the vestry established on a site belonging to the Burial Board at Finchley; the tents having double walls and being heated with hot-water apparatus. The tents were situated at a distance of 1700 feet from the nearest dwelling-house; and there is no reason to believe that, either by means of ambulances or otherwise, the encampment gave rise to a single case of small-

pox in Finchley. In all, 547 cases were reported to the sanitary department during the year, and 376 were removed to hospital. Of the cases admitted into the tent hospital all the deaths occurred amongst those either unvaccinated or presenting no evidence of vaccination. The report deals in detail with the various causes of mortality in the parish; it explains the action taken with regard to slaughterhouses, cowsheds, bakehouses, lodginghouses, &c.; and it urges upon the vestry the adoption of some better system for dealing with the house and street refuse than the admittedly bad arrangement now existing; also the provision of a suitable public mortuary. A detailed account of the sanitary work done during the year shows that there has been considerable activity in the health department, and that much has been done to secure an improvement in the sanitary conditions under which the inhabitants are living.

St. Giles.—Mr. Lovett's annual report to the Board of Works for the St. Giles District shows the population to have been 45,257 in 1881; the birth-rate being 29·4, and the death-rate as high as 24·6 per 1000. The report deals in detail with the outbreak of scarlet fever, which affected the district early this year, and which was ascertained to have been due to an infected milk-supply; it explains the incidence of the various infectious fevers in the district, and it refers to an outbreak of typhus which broke out in Marchmont-place in an area condemned under the Artisans' Dwellings Act, and which was not arrested until most of the filthy and dilapidated houses in that locality had been closed under a magistrate's order. The report of the various forms of sanitary work executed shows, amongst other things, that as many as 13,248 visits were paid to houses and premises for sanitary purposes, and that 1080 articles were dealt with in the hot-air disinfecting chamber.

West Sussex.—The combined sanitary district for which Dr. Kelly acts as medical officer of health in West Sussex has an estimated population of 94,770, and it is satisfactory to note that, unlike some other similar districts, it has undergone no diminution in area since it was formed in 1874. Indeed, the principle of combination has evidently met with increasing approval, for two additional rural districts have united themselves with it. The birth-rate per 1000 was only 30·2, a fact to be attributed to the absence in this district of the usual proportion of females at the child-bearing age—viz., from fifteen to forty-five years of age. The death-rate, as throughout the whole country, exhibited a diminution as compared with previous years, and it only amounted to 13·9 per 1000 living; the mean age at death was forty-two years, and the infantile mortality was only 9·3 per 100 births registered. In the Steyning rural district an outbreak of enteric fever occurred at Castletown. After a first attack several sharp outbreaks took place in the neighbouring cottages, the inhabitants of which resorted to the same well. Carbolic acid being poured down the closets soon made its appearance in the water from the well, and although the water was derived from a stratum below that into which the soakage of filth took place, yet it is evident that infective matter must have trickled into it at intervals, thus causing several separate outbreaks. In the Midhurst rural district an outbreak of the same disease followed on the return home of a young woman who had been under treatment for enteric fever for eight weeks, and who was convalescent. The spread, however, did not take place until the lapse of some eight weeks after her return, and it is suggested by Dr. Kelly that the excreta, notwithstanding convalescence, remained infective, and so infected the common privy used by those subsequently attacked. He also considers that the delay in the outbreak was due to the severe cold which followed on the girl's return; the infectious quality of the excreta being first arrested by frost, and then revived on the recurrence of mild damp weather after a thaw. In the East Preston rural district a considerable outbreak of diphtheria occurred. It commenced by ill-marked cases of sore-throat and so-called "croup" amongst children attending a certain school, and it spread amongst them by personal infection until twenty-one had been attacked and six had died. The closing of the school, followed by a process of disinfection and cleansing, led to a complete cessation of the outbreak. Throughout the combined district sanitary work is steadily in progress, and though conditions, such as the pollution of the river Arun by sewage from the Horsham sewage farm, still remain to be dealt with, yet much good work has been effected. Water-supplies are improved, slaughterhouses and bakehouses are regularly inspected and kept in a wholesome state, excrement disposal is better carried out, and a continuous supervision over the entire area is steadily maintained. The report is very complete in its meteorological, statistical, and other tables, and in the information as to local conditions which it supplies.

Featherstone (Urban).—The report of the medical officer of health for this small Yorkshire urban sanitary district affords favourable evidence of its sanitary condition during 1881. This district, which has not been created much more than five years, had a population at the last census slightly below 6000 persons. It is evident from its vital statistics that the age constitution of its population is abnormal. It appears from the Preliminary Census Report that the population of its area increased from 2265 in 1871 to 5901 in 1881, and during the five years of its existence (1877–81) the birth-rate averaged 48·3, whereas the death-rate did not exceed 20·1. Rapid aggregation of population has probably led to the immigration of a large number of young adults, with the natural result of a high birth-rate and of a low death-rate. The death-rate in 1881 was as low as 16·4, and considerably lower than in any of the four previous years. The zymotic death-rate (almost entirely due to an outbreak of scarlet fever) was 2·0 per 1000, against an average of 4·1 in the preceding four years. No death during the year was recorded from "either small-pox, measles, diphtheria, croup, or any of the continued fevers." With reference to the immunity from typhoid fatality during last year the medical officer of health (Mr. Buncle) calls attention to the fact that the sanitary district was formed "mainly on account of the excessive mortality in the district from typhoid fever and other diseases produced by filth and bad drainage." Notwithstanding the marked improvement in the health of the district, and the exceptionally favourable mortality statistics of 1881, the medical officer in the report before us points out many reforms which still call for the attention of the sanitary authority, and neglect of which might at any time seriously interfere with the steady improvement in the health of the district. The water-supply and the scavenging of the district still, it is said, need improvement, and the success of previous local sanitary efforts should, and probably will, secure further progress. We congratulate Mr. Buncle both on the matter and manner of his report. The few statistics given are sufficient for the purpose, and clearly arranged; they, moreover, include a concise summary of the results for past years, which, although indispensable for comparative purposes, is too frequently omitted from such reports.

Cork.—During the four weeks ending August 12th, the births registered came to 164, or at a rate of 27·02; and the deaths to 106. The annual deaths per 1000 gave a total ratio of mortality of 17·05; but deducting the deaths (8) which occurred in the workhouse, and therefore outside the district, the urban death-rate would then stand at 16·02. These statistics, when compared with those for a corresponding period last year, show that the death-rate of the city remains much the same; but febrile diseases, more particularly typhus fever, have since then greatly diminished.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5696 births and 3374 deaths were registered during the week ending the 23rd inst. The annual death-rate in these towns, which had been equal to 19·9 and 20·0 per 1000 in the two preceding weeks, further rose to 20·8 last week. The lowest rates in these towns were 11·4 in Brighton, 12·7 in Bolton, 14·7 in Norwich, and 14·9 in Bristol. The rates in the other towns ranged upwards to 25·5 in Newcastle-upon-Tyne, 26·2 in Preston, 27·5 in Nottingham, and 28·5 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 539, showing a further considerable decline from recent weekly numbers; 270 resulted from diarrhœa, 100 from scarlet fever, 64 from whooping-cough, 50 from "fever" (principally enteric), 44 from measles, 24 from diphtheria, and 7 from small-pox. The lowest death-rates from these diseases were returned in Norwich and Brighton, while the highest occurred in Preston and Sunderland. The death-rate from diarrhœa showed a further decline from those prevailing in recent weeks; it was, however, equal to 4·3 in Hull and 7·5 in Preston. The largest proportional fatality of scarlet fever occurred in Sunderland and Derby; of

whooping-cough in Manchester and Oldham; of measles in Sheffield and Sunderland, and of "fever" in Sunderland and Derby. Of the 24 deaths from diphtheria in the twenty-eight towns, 17 occurred in London, and 4 in Leeds. Small-pox caused 5 deaths in Newcastle-on-Tyne, 2 in Nottingham, and 2 in the suburban districts round London. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined from 114 to 84 in the three preceding weeks, further fell to 79 on Saturday last; 13 new cases of small-pox were admitted to these hospitals during last week, against 9 and 10 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 178 and 192 in the two preceding weeks, further rose to 263 last week, and were 61 above the corrected weekly average. The causes of 85, or 2·5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Brighton, Portsmouth, and in four other smaller towns; whereas the proportions of uncertified deaths were largest in Wolverhampton, Oldham, Preston, Bradford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 20·1 and 20·9 per 1000 in the two preceding weeks, declined to 18·1 in the week ending the 23rd inst., and was 2·7 below the mean rate during last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were but 83 last week, and showed a further decline of 20 from recent weekly numbers; they included 34 from diarrhœa, 13 from whooping-cough, 13 from scarlet fever, 12 from "fever," 9 from diphtheria, 2 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 3·5 per 1000 in the eight towns, and slightly exceeded the rate from the same diseases in the large English towns. The highest zymotic death-rates occurred last week in Glasgow and Dundee. The 34 deaths attributed to diarrhœa showed a further decline from recent weekly numbers, but included 12 both in Glasgow and Dundee. The 13 fatal cases of whooping-cough, of which no fewer than 11 occurred in Glasgow, also showed a decline from the numbers in recent weeks. The deaths from scarlet fever, on the other hand, which had been 11 and 10 in the two previous weeks, rose to 13 last week, and included 9 in Glasgow and 2 in Edinburgh. The deaths referred to "fever" were more numerous than in any recent week; 5 were returned in Glasgow and 3 in Dundee. Five of the 9 fatal cases of diphtheria occurred in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 61 and 70 in the two previous weeks, further rose to 72 last week, but were fewer by 6 than those attributed to the same diseases in the corresponding week of last year.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 27·6 and 25·8 per 1000 in the two preceding weeks, was 26·1 in the week ending the 23rd inst. During the first twelve weeks of the current quarter the death-rate in this city averaged 23·1 per 1000, against 18·5 in London and 17·8 in Edinburgh. The 174 deaths in Dublin last week showed an increase of 2 upon the number in the preceding week; they included 10 which were referred to diarrhœa, 4 to "fever," 3 to whooping-cough, 2 to measles, 1 to scarlet fever, and not one either to small-pox or diphtheria. Thus 20 deaths resulted from these principal zymotic diseases, against 28 in each of the three preceding weeks; they were equal to an annual rate of 3·0 per 1000, while the rate from the same diseases was 2·8 in London and 2·0 in Edinburgh. The fatal cases of diarrhœa, which had been 17 in each of the two previous weeks, declined to 10 last week, but were equal to a rate considerably exceeding that which prevailed either in London or Edinburgh. The deaths referred both to "fever" and whooping-cough showed an increase upon the numbers in the previous week. No fatal case of diphtheria was recorded, although 3 were returned in the preceding week. The deaths of infants showed a considerable increase upon those in the previous week. The causes of 30, or 17 per cent., of the deaths registered during the week were not certified.

THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS.

THE INEQUALITY OF THE MEDICAL AND SURGICAL EXAMINATIONS.—(*Continued.*)

Examination of Dr. R. H. SEMPLE.

3669. (*Professor Huxley.*) I understand that, to a large extent, the same young men who come to the Society of Apothecaries also go to the College of Surgeons?—I do not know, but I think so, though, as I have said, a great many come up from other bodies. For instance, one comes from the Royal College of Physicians of Edinburgh, and another from the Royal College of Surgeons, Edinburgh, another comes from Calcutta, and others come from the Faculty of Physicians and Surgeons, Glasgow. These men do not go through the London College of Surgeons at all; a great many also come from India, Australia, and all parts of the world, and do not pass through the College of Surgeons.

3670. Can you explain to us why it is that so large a number of young men come to you for your final examination who do not come to you for your earlier examinations? You have told us that a large number do come for the final who do not come for the earlier examination?—First of all, many consider it too severe. There are men who regard chemistry as a kind of *pons asinorum*, and avoid it by all the means in their power; but some of those men go to the College of Physicians of Edinburgh, and get over the chemistry somehow or other, or to the Faculty of Physicians and Surgeons of Glasgow. At any rate, they get over the chemistry somehow, and then they come back.

3671. Would you say that the examinations are at present conducted in such a way that candidates exercise a certain power of selection as to the bodies they should go to for particular stages of their examinations?—Decidedly so.

Examination of Mr. CHRISTOPHER HEATH.

3991. (*Chairman.*) Has your experience taught you that there is any considerable difference between the examinations of the various licensing bodies?—Certainly, men who fail here can go and get a diploma elsewhere.

3992. Are the examinations of all the English licensing bodies nearly the same?—There is a great difference in the different boards in England, of course, but men who fail at the examinations of the College of Surgeons can go and get a diploma elsewhere.

3993. Where do they generally go?—To Glasgow by preference, and sometimes to Edinburgh.

3994. Not to the Edinburgh University I presume?—No, the double licence of the College of Physicians and College of Surgeons at Glasgow is considered the easiest, and next to that is the double licence of Edinburgh.

3995. Have you yourself any knowledge from experience of the examination of the Glasgow Faculty?—I only judge by the results, I know that men who go up, who failed here, come back with diplomas.

3996. You know from your own knowledge instances of men who have failed here in the examinations of the College of Surgeons and who have gone to the Faculty at Glasgow or the College of Edinburgh, and obtained diplomas?—Yes.

3997. Have you known many such instances?—A good many scattered over the last twenty years.

3998. Could you give us one or two particular instances without mentioning the names?—I may mention one which occurred two years ago. A man was plucked the third or fourth time at the primary examination at the College of Surgeons in anatomy and physiology, he afterwards, at my recommendation went to Glasgow, and came back with a double qualification. (The witness gave the details of this case).

3999. Can you give us any other instance?—Yes. (The witness gave the details of another case).

4000. Have you known many such cases?—Yes.

4001. And do they occur constantly?—I do not say they occur constantly, but I have known a good many cases in twenty years.

4002. And you had no doubt in your own mind that the examinations of those two licensing bodies are considerably easier than certain of the examinations of the two London corporations?—I have no doubt whatever of it.

4003. Do you consider that the examinations of the two London corporations are at all too high?—I think they are being screwed up too much, I must say, in the early subjects.

4004. In what respects?—For men who have got to get their living by practice and are badly paid, too much scientific knowledge is expected of them.

4005. In what sciences?—In physiology particularly, and minute anatomy, or you might say histology.

4031. (*Professor Turner.*) Are you acquainted with the regulations of the Royal College of Surgeons of Edinburgh admitting candidates to the examination of that body?—No, I cannot say that I am.

4032. Would you kindly read regulation 17 (handing a book to the witness)?—"No candidate shall be admissible to examination who has been rejected by any other licensing board within the three months preceding his application to be examined."

4033. Those candidates you have referred to, who were rejected by the College of Surgeons in England, must have allowed three months to elapse before they were admitted to the examination of the College of Surgeons of Edinburgh, and a similar regulation prevails in the Edinburgh College of Physicians and in the Glasgow Faculty?—I suppose so.

4034. Then presumably those rejected candidates were engaged in study during the subsequent three months?—I think I could give a case to the contrary in which the greater part of the three months was vacation.

4035. Still a student, although it may be vacation as regards the schools, may be engaged in private study?—Yes.

4036. You yourself in the earlier part of your career were a good deal engaged, were you not, in preparing students for examination?—Yes.

4037. I suppose you found you could do a great deal in three months?—Yes, a great deal.

4038. Is it at all unlikely that those candidates remitted by the College of Surgeons of England, spending, we will say, those three months in study, had added very materially to their stock of information?—I do not think that they had. I do not think that some men that I knew were capable of doing it; and I am certain that in one particular instance the man could not have added much to his information.

4039. Is it your opinion that those persons you have referred to were really incompetent persons in the subjects on which they were examined?—I think they were men of inferior intellects certainly.

4040. Do you think that they were such persons as should not be admitted to practise medicine?—I do not say that; that is a very wide question.

Examination of Mr. C. MACNAMARA, F.R.C.S. Eng.

4124. (*Bishop of Peterborough.*) To what do you attribute the greater ease with which men can get into the medical profession here than elsewhere?—Clearly because if men fail here in one examination they pass to another and less stringent examination in some other part of the country.

4125. Have you known as a matter of fact in your own experience cases of students who have failed in one examination and have sought another?—I have.

4126. And those students have got in in the second case because the examination was easier?—Yes, they have.

4127. And is that the opinion generally of those practitioners with whom you are in relation?—Unquestionably.

4128. It is very strongly the opinion of the profession, is it not, so far as you know it, that it suffers from the too great ease with which men can obtain a licence to practise?—Unquestionably.

4129. And also that that too great ease arises from the fact of there being so many licensing bodies?—Precisely so.

4130. That opinion is not only your own, but it is held generally by the profession?—I believe it is.

Examination of Mr. HENRY MORRIS, M.B., F.R.C.S., *Lecturer on Anatomy, in the Middlesex Hospital, and formerly engaged in preparing Students for the Professional Examinations.*

4588. (*Chairman.*) Of course you must of necessity be very familiar with the different examinations of the different licensing bodies; in preparing young men formerly you must have found, I suppose, that there is a considerable difference between the examinations of the different licensing bodies?—Yes, certainly.

4589. And should you say that the standard was the least high in London, or in the provinces?—My experience was almost limited to the several examinations held by the different bodies in London, so that I could not compare from a teaching point of view the London examinations with the examinations in Scotland or in Ireland for instance.

4590. Do you remember any instance of persons who could not pass the examinations here and who went to Scotland or to Ireland?—Yes, many; but some of the instances that one has known of students going to Scotland or elsewhere for the examinations have not been altogether on account of the difference in the severity of the examinations of the different bodies, but for other reasons.

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4592. You are now speaking solely with regard to the universities. I do not suppose you would say from your experience that persons who have failed here to pass the examinations have gone to the Scottish universities?—No.

4593. They go there to pass some of the examinations of the corporations?—Exactly so.

4594. But have you known instances of persons who have gone north for the examinations of the corporations on that account?—Certainly.

4595. You would say it is quite notorious that such things exist?—It is notorious in the schools both in London and elsewhere, I think.

4596. And with regard to the examinations in London, what examinations, should you say, are the least high in London?—That of the Apothecaries' Hall undoubtedly.

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4732. (*Mr. Cogan.*) Are not some of the bodies notorious for giving very easy examinations in anatomy?—Yes, they are.

Examination of Professor W. T. GAIRDNER, M.D.

4802. (*Mr. Cogan.*) Do you believe that at present there is any injurious competition—I mean injurious to the public—arising from the number of licensing bodies?—I believe that has been, at all events, very much exaggerated. I am not prepared to say that there have not been instances where licensing bodies have been weak, but I think that that has been very much exaggerated.

4803. If evidence has been given to us that many students who could not pass the test of some licensing bodies went to others for the purpose of passing a lower examination, and did successfully do so, would you believe that that was an evil?—If it were a general practice it certainly would be a public evil. It might happen with any individual student, or with two or three students, without being necessarily a fault.

Examination of Mr. THOMAS COOKE, F.R.C.S. Eng., M.D. Paris.

In answer to the Chairman Mr. Cooke said he had had large experience in preparing young men and practitioners for various examinations.

4899. (*Chairman.*) Are you aware of a considerable difference in the severity of those examinations?—There is a very great difference in the severity of the several examinations; the difference is tremendous. As regards the Scotch examinations, I should not be in a position to speak of them individually. I can speak of the Scotch examining bodies in general. I should not be in a position to speak of them in particular, and to compare, with any positive data, Edinburgh to Glasgow or Glasgow to Edinburgh.

4900. You are speaking of the corporations?—I am speaking of the corporations.

4091. Will you give us your own idea of the relative severity of those examinations?—The Scotch examinations are, I think, very fair; they are thoroughly good practical examinations taken all round. Men who are insufficiently prepared do not pass them. They are thorough and searching examinations; and, at the same time, my experience is that ample time is allowed to the candidate to show what he really does know. I think they are very good examinations in every respect as regards the average student, that is as regards the student who is to become the general practitioner. I should except the M.D. of St. Andrews. I have a special note on that point.

4902. I thought we were speaking of the examinations of the Scotch corporations only. I was not referring to the Scotch universities. Should you say that the examinations of the Scotch corporations were as difficult as those, for instance, of the Royal College of Surgeons in England?—No; and yet in one sense they are. There are some men who would pass the examinations of the Royal College of Surgeons of England who would possibly not pass the Scotch

examinations. At the same time there would be a large number of men who would pass the Scotch examinations who would not pass the examinations of the Royal College of Surgeons of England.

4903. Will you explain how that would occur?—The man of good average capacity and ability, who has worked fairly during the whole of his time, and acquired a good practical knowledge of his subjects, I hold to be fairly certain to satisfy the Scotch examiners; and, I think, he would usually satisfy also the examiners in Lincoln's-inn-fields; but it is rather the brilliant and the sharp man, the man who has read a good deal, who has possibly a more, I will not say superficial knowledge, but still a more showy knowledge of details, who would be particularly successful at the Royal College of Surgeons. For the examination of the Royal College of Surgeons both a good practical knowledge and also, if I may say so, a showy knowledge, or a knowledge of little points, is frequently of value, and may turn the scale in favour of a man.

4904. Have you ever known cases in your own experience in which young men who have failed to pass the English examinations went to Scotland and passed the corporation examinations there, or *vice versâ*?—I have known a great many who, having failed in London, have gone to Scotland and passed. There are a great number who do that.

4905. Is that a common case?—It is.

4906. Have you known many come from Scotland to pass in London?—I have not known many. At the same time it is but fair that I should state that I meet with a large number of London students, while I meet with a relatively small number of students from Scotland; so that the figures I should have would scarcely establish the proportion between those who go from London to Scotland and those who come from Scotland to London. I think I can say, indeed I am sure I can say, a large number who are not successful here, who fear to face the examination here, go to Scotland.

4907. Taking a large number, what should you say was the general reason why the average of them, having failed in London, succeed in passing in Scotland?—Several reasons may be given. The examinations in Scotland are less hurried, and they are more thorough. It frequently happens that men get nervous or flustered at the London examinations; and as the time is rather short, if a man gets flustered at the first table, he has scarcely time to recover himself sufficiently to show what he really does know.

4908. How long is occupied in an examination in London?—The time has been lengthened, and now, I think, the candidates have a quarter of an hour or twenty minutes at each table; I would not be very positive, but the time is on the whole rather short.

4909. And how long have they at the Scotch corporations?—I could not give the precise figures.

4910. I merely mean in a general way?—The impression on my mind is that they are less hurried, and I have no doubt that that is the case. The number of men examined is less at a time. Anyhow, as regards Glasgow, a man giving notice of his desire to be examined can frequently have a special examination, and therefore be less hurried.

4911.—How do the examinations of the Apothecaries' Society of London compare with those of the College of Surgeons of London?—I believe it would be very difficult indeed to compare the two, they are so very dissimilar. The examination of the Apothecaries' Hall of London is a good examination as regards the compounding of medicines and the mere ordinary uses of medicines; but in all other respects I hold it to be totally insufficient to establish a man's ability to practise medicine or surgery.

4952. (*Professor Turner.*) Then you leave your pupils to select for themselves the examining board to which they will go?—Entirely so, and the time at which they will go up for examination.

4953. You used the expression that some of the pupils feared to face the examination here in London; at the College of Surgeons, I apprehend, you mean?—Yes.

4954. And then you said they went down to Scotland?—Yes.

4955. Did that mean that they had been rejected at the examinations here and then went down to Scotland, or that they dreaded that the examinations here might be too difficult for them?—The two things would be comprised in my statement. Some had been rejected, and some felt certain, and I may say those who knew them felt certain, and I myself felt certain, that they were not sufficiently prepared, and that they would probably be rejected.

4956. I suppose you know that the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow conduct an examination which covers a much more extensive range of subjects than the examination of the Royal College of Surgeons of England?—Quite so; you refer, I believe, to the double qualification, do you not?

4957. No, I refer to the examinations conducted by the College of Surgeons and the Faculty of Physicians and Surgeons in Glasgow for their ordinary diplomas?—I have known men very deficient in chemistry. That is one of the subjects required at Edinburgh, which is not required here. Men go to what they consider the trouble of getting up chemistry, in order to be able to present themselves at the Scotch examinations.

4958. With reference to the youths who have shown this fear of facing the examinations in London, are we to understand that they are in your judgment, so far as you have the means of knowing what their information is, persons who ought not to be admitted to the ranks of the profession?—No. I do not say that.

4959. In some respects I gathered that you hold that the examinations of the corporations in Scotland are conducted in a fairer and more judicious way than the examinations of the College of Surgeons of London?—In a more uniform and more reliable way as regards the results, that is the results of the pass and the pluck. I could feel much more sure that a man fairly well up in his work would pass at the Scotch examinations than that the same man, or even a more brilliant man, would pass the English examinations.

4960. Because the examinations in Scotland, you think, are conducted in a less hurried way, and are better adapted to bring out the knowledge of the candidate?—I think so.

(To be continued.)

THE SERVICES.

Deputy Surgeon-General Herbert Reade, V.C., has been transferred from the Eastern District, Colchester, to Plymouth, as Principal Medical Officer of the Western District, vice Deputy Surgeon-General J. Lamprey, proceeded to Cyprus with the Egyptian expedition.

Deputy Surgeon-General Murphy has been appointed to the Eastern District on return from Ceylon.

Brigade Surgeon Veale is on passage from Egypt in the hospital ship *Carthage*, having been invalided from Ismailia. Dr. Veale was suffering from dysentery.

H.M. troopship *Malabar* arrived at Portsmouth on the 25th inst., with a large batch of sick and wounded from Egypt. Surgeon-Major R. Anderson was in medical charge of the vessel, with Surgeons Anthonisz and Lane. The sick were transferred to Netley Hospital. Two deaths occurred shortly before the vessel left the Canal: one, a private of the Army Hospital Corps, from dysentery.

YEOMANRY CAVALRY.—Buckinghamshire: Surgeon Henry Walter Kiallmark is granted the honorary rank of Surgeon-Major.

ADMIRALTY.—Fleet Surgeon John Sampson Levis, M.D., has been placed on the Retired List of his rank from the 25th instant; Staff Surgeon William Graham to be Fleet Surgeon in Her Majesty's Fleet, with seniority of the 20th instant.

The following appointments have been made: Fleet Surgeon William H. Crnice, to the *Eagle*, vice Lewis; Surgeons Michael J. M'Carthy, M.D., Andrew D. Peyton, and Staff Surgeon James H. Martin, to the *London*; Staff Surgeon John Allan Robertson, to the *Heroine* (appointment of Edward W. Doyle cancelled); Fleet Surgeon James N. J. O'Malley, additional, to the *Duke of Wellington*; Fleet Surgeon William S. Fisher, to the *Euryalus*, vice Strickland.

UNWHOLESOME MEAT.—At the West Ham Police Court, Stratford, on Wednesday last, an application for an order to destroy more than a thousand carcases of sheep in a putrid condition was made by the Port of London Sanitary Inspector, Mr. Gilles. Evidence having been given by Dr. Collingridge, the medical officer of health, to the effect that it was unfit for food, the stipendiary magistrate, Mr. Phillips, granted the order asked for. The meat was brought from Egypt by the *Orient*, and was lying in the Victoria Docks.

Correspondence.

"Audi alteram partem."

"WOOD PAVEMENT."

To the Editor of THE LANCET.

SIR,—Professor O. W. Wight, Health Officer of Detroit, U.S.A. (THE LANCET, Sept. 23rd, p. 513), describes wood pavement as laid in America, and utterly condemns it, and most deservedly; but then the mode of construction described is wrong in every way it is possible to be. Wood pavement should be constructed as under—namely, the foundation should be absolutely sound, watertight, and have a smooth and even surface. In England such foundation is best made of Portland-cement-concrete, the surface finished with neat cement; over this surface should be laid a layer of tar-felt, or a layer of asphalte, not less than half an inch in thickness. The wood blocks should be sound and free from sap, if creasoted all the better. The blocks should be laid solidly on the prepared base, and, with a layer of tar-felt betwixt, be close jointed. The surface of any wood pavement so laid will be smooth and absolutely watertight, and in wear will not be subject to any of the ills attributed to the wood pavements as laid in America and as described by Professor Wight. The wood pavement as herein described will, in England, cost from 12*s.* to 14*s.* per square yard, according as the foundation may have been more or less costly. The felt used will cost 2*s.* per square yard. Wood paving has been most imperfectly laid in London, and has greatly discredited the system. There are, however, now good samples—as in Parliament-street and St. James's-street, for instance.

The bad examples of America must have been followed in England, and especially in London at first: such as loose and ill-formed foundations with blocks set wide apart, the spaces filled in with gravel or with concrete. In these cases the foundations gave way, the blocks frayed at the edges and sunk, the whole surface becoming uneven and jolting with less than twelve months' wear. When wood blocks are laid on a solid and smooth foundation, and are close jointed, they cannot sink or fray at the edges, but must wear evenly, because the traffic passes over smoothly. Such surfaces may be washed by hose and jet so as each morning to be clean and sweet as when new. London under uniform municipal government may accomplish this.

I am, Sir, yours faithfully,

September 25th, 1882. ROBERT RAWLINSON, C.B., &c.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—The newspaper reports of the proceedings of the Public Health Section of the Social Science Congress contain a statement that a resolution was adopted by the section in approval of the principle of Mr. Hastings' Bill, which proposes that the medical attendant shall be compelled by fine or imprisonment to report to the sanitary authority every case of infectious disease coming within his knowledge. Lest it may be assumed that the section gave its deliberate sanction to this proposal, I think it well to inform you of the exact circumstances. After a debate, which lasted four hours and a half, and in which the speakers against the proposal were almost as numerous as its advocates, a motion was unexpectedly proposed, no notice whatever of it having been given. The motion declared that the section endorsed Mr. Hastings' Bill, which was not before the section at all, had not been even mentioned in the debate except by the mover, and was entirely unknown to the great majority of those present. As it was manifestly improper that the section should be pledged to approval of a measure of which it was ignorant, I desired to moved the previous question as an amendment, and if I had been permitted I am satisfied that my motion would have been carried by a large majority. To my astonishment, it was ruled by the chairman that no amendment of any sort could be entertained, and that a Yes or No vote should be taken on the merits of Mr. Hastings' proposal. Such a question being put from the chair, the great majority of those present declined to vote, and a small minority of the section decided the question affirmatively. No doubt use will be made of this vote to support Mr. Hastings' Bill in the next session of Parliament, but I think it will be agreed than an expression of opinion, forced without notice, and without permitting any alternative proposition to be considered, is entirely valueless. And I am further of opinion that the ruling of the chairman was altogether unconstitutional, and at variance with the usage of the Congress or any other public assembly.—I am, Sir, yours &c.,

ARCHIBALD H. JACOB, M.D., F.R.C.S.

Ely Place, Dublin, September, 1882.

THE QUEEN'S UNIVERSITY DEGREES.

To the Editor of THE LANCET.

SIR,—In your issue of the 23rd inst. I notice a statement made before the Royal Commission on Medical Acts, by Dr. Jacob, of Dublin, where, among other things, he says, referring to the affiliated Colleges of the late Queen's University, "A student attending in a Queen's College may obtain all the lectures necessary for a Queen's University degree (or a Scotch double diploma) in two years." Now, as to the requirements for a Scotch double diploma I know nothing; but regarding the Queen's University, I know that Dr. Jacob's statement is not a fact. It may be a great annoyance for any medical man to be called on to give evidence before a Commission, but if he consents he ought to feel bound at least to be accurate in his statements irrespective of results. The Calendar of the University will prove the truth of my statement; but, in a word, I may just show the impossibility of what Dr. Jacob states. The University requires twenty-four full months' attendance at hospital, and as it is only possible to attend nine months in each year, it will be evident that two years will not suffice, but that it will require three winter terms of six months each and two summer terms of three months each, or, in other words, three years. Besides this, no student can attend hospital during his first year, as he is obliged to be present at College lectures during the roll-call at hospital, and cannot secure "a present" at both places. This brings out a further fact, that each student must therefore begin his hospital attendance after his first year at College, and can thus only secure the necessary certificates in three years and a half.

Dr. Jacob suggests that the reason so many Queen's University students go to Scotland for qualifications—and everyone must admit the proportion is large—is because the term of study at Queen's Colleges is very short. This I have shown not to be a fact. The true reason is this, Queen's University degree is admittedly difficult to obtain, and this Dr. Jacob must know, there being only one-fourth of the students who enter the University who ever obtain its degree. And, as a matter of fact, Dr. Jacob perhaps also knows that students failing at Queen's University go to either the Scotch licensing bodies or to the Royal College of Surgeons, Dublin, and obtain their qualifications.

I am, Sir, yours &c.,

London, Sept. 26th, 1882. J. W. M.

SUDDEN DEATH AFTER DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—The case related by Mr. Alfred Charlton in last Saturday's LANCET reminds me of one which came under my observation in 1874, when I was acting as locum tenens for Dr. R. Lowther, of Cartmel, in Lancashire. Diphtheria of a severe type had carried off several members of one of the leading families in the place. Amongst the survivors was a young lady, whose age I do not recollect, but probably about thirteen or fourteen, convalescent as far as general symptoms were concerned, but suffering from precocious pharyngeal paralysis, which rendered deglutition of a sufficient quantity of food impossible. For a week or ten days she had been living upon nutrient enemata, but she was beginning to swallow with greater facility, and appeared in a fair way of recovery, when death occurred in the following manner:—A bedpan, which she required to use for the purpose of defecation, had been slipped, without causing her any exertion, beneath the clothes; but some difficulty taking

place in the passage of the motion, she was in the act of raising herself slightly by the arms, when she fell back dead.

Post-mortem examinations show that the heart in diphtheria is often affected with fatty degeneration, and one of the causes of sudden death is paralysis, or failure of the cardiac muscle. In other cases a fibrinous clot may be found either in the heart itself or in the large vessels.

I am, Sir, your obedient servant,

Paris, September 25th, 1882. OSCAR JENNINGS, M.D.

"ETIOLOGY OF DIPHTHERIA."

To the Editor of THE LANCET.

SIR,—I read with great interest the report of the outbreaks of diphtheria at King's Lynn, Sale, and Sutton-in-Ashfield, reported in last week's LANCET, and commented upon by you in a leader, as throwing some light on the etiology of an outbreak here, which has haply been to all appearance stamped out, or died a natural death.

Harrow Weald is hilly and woody, lying to the north of Harrow, with a clay soil, the clay extending from twenty feet to forty feet below the surface; has no river or canal. Without making a lengthy report of separate cases, I will remark that the disease seemed to be propagated amongst the children attending the parish schools; but no cause could be discovered by the medical officer of health to account for the outbreak. The schools, however, were closed, but the disease increased. A thorough investigation of the houses at which the disease was rife threw no light on the etiology of the outbreak; milk, water, drains, &c. did not account for it, and had I not seen the report of the outbreaks referred to would have had to be content with suppositions. A sewerage system for Pinner and Harrow Weald has lately been commenced and new pipes laid at a depth of twenty feet below the surface, throughout the whole of the districts, making altogether a length of eight miles. The old pipes have not been interfered with in any way, nor have the new ones been yet connected with any house, thus sewage matter has not been exposed, and so the outbreak was not connected with the new scheme.

The question therefore is, Have some long-buried germs of some indigenous diphtheria, causing microzymes, been unearthed, and, aided by season and atmosphere, given rise to a fresh outbreak? The outbreak was preceded by (one might call it) a "mumps" epidemic, which, I am convinced, was true mumps, and not mild cases of diphtheria. I had no case of scarlatina or measles. None of the men at work on the excavations had the disease; but this is in no way strange, as children are much more liable to it than adults. The only two cases of adults having diphtheria that I had seem to have caught the disease by direct infection from nursing children suffering from it; the disease, however, takes a much more malignant form in adults.

With regard to the action of diphtheria on the heart much remains to be discovered; several patients, some seemingly convalescent (although I notice it only occurs in those who have the more malignant form of the disease), complain suddenly of violent pain in the cardiac region, and as suddenly expire. Can any theory be suggested about this? Although the symptom is mentioned in some text-books, I have never seen an attempted explanation.

I am, Sir, yours obediently,

PERCY POPE, M.R.C.S., &c.,
Medical Officer, Pinner and Harrow Weald Districts.

Pinner, September 25th, 1882.

NEWCASTLE-ON-TYNE.

(*From our own Correspondent.*)

OUR very modern "city," but very ancient town, has lately become a centre of attraction since the "Congress season," which has—as has been humorously said—"set in with its usual severity." It may not be known to all your readers that we have at Tynemouth now an exhibition of naval architecture, fishery appliances, and machinery, exhibiting the manufactures of the district from Armstrong guns and steam dredgers to Swan lights and swing bridges, and life-saving apparatus—indeed, I might say, that all machinery connected with the sea, and much of what is connected with the land, has a temporary home and resting-place at the beautiful aquarium at Tynemouth. This rising watering-place is to all intents and purposes a suburb of Newcastle, being reached by rail in a very few moments. The success of this exhibition has exceeded all expectations; 18,000 persons have visited it on a single day, and for the short time it has been opened 100,000 persons have passed in. I would strongly advise all who have the opportunity to pay it a visit, as there is much to interest a medical visitor.

The above great attraction and the Sanitary Institute of Great Britain Congress have crowded our city with visitors. The Congress began yesterday, and "made a good beginning," most travellers would say, by a public luncheon at 1 P.M., while at 3 P.M. the exhibition was opened. This, of course, is an exhibition in our city of sanitary apparatus and appliances, and is quite distinct from the one before mentioned at Tynemouth. It is really a wonderful collection, from all parts of the empire and the Continent, of objects connected with health, such as baths, lavatories, heating, cooking, lighting, ventilation, feeding, clothing, filtering, disinfecting, *et hoc genus omne*. Lectures on cooking are to be given daily, while prizes and certificates are to be awarded by competent judges. Our *confrères* here have made due arrangements for all professional and lay visitors who wish to see our medical institutions. At the Infirmary (250 beds) the physicians and surgeons will conduct professional visitors, while the house-governor and house-surgeons will conduct other members of the Congress. Our city is fully supplied with special medical institutions; I need only mention the Child's Hospital, the Women's Hospital, the Eye Infirmary, the Skin Hospital, Hospital for Diseases of the Chest and Throat, and Ear Hospital, the staff of which will be glad to receive and conduct members of the Congress. Those who go down to Tynemouth cannot do better than run on to Whitley and visit the noble Convalescent Home (135 beds), with which the name of our esteemed townsman, Dr. Philipson, is so intimately connected. It is modestly called "Home," but at first sight, and afterwards, indeed, from a structural point of view, it might be fitly called a castle or a palace. On Tuesday also the visitors were invited, and had special conveyances provided to take them, to the interesting works of Sir William Armstrong at Elswick, where they witnessed the various processes in this great factory; but the real business may be said to have begun on Tuesday night, when the President, Captain Douglas Galton, F.R.S., gave his address. I can only here give you the heads of this discourse, but even that will show the ground it covered and the importance of the matters touched upon—viz., "Disease conveyed by germs," "Germs in the air," "Germs in the blood," "Germs in the soil," Germs in fever," "Our countless enemies," "Robust health our defence," "Isolation of fever cases," "Mysterious movements of epidemics," "Impure water," "Impure air," "Sewerage works valuable," "Dust in the air," "The value of sanitary measures," and so on, I might say, on the whole sanitary question in all its bearings. The address was one of "a master," and was listened to with much attention. All our daily papers give it much prominence and discuss its many aspects.

To-day we are promised the following papers and discussions thereon:—In the Section of Sanitary Science and Preventive Medicine: Address by Dr. Embleton. H. E. Armstrong, Esq., our active city officer of health: Sketch of the Sanitary History of Newcastle-on-Tyne; with maps and illustrations of ancient and modern Newcastle. Dr. Alfred Carpenter: The Sanitary Aspect of Dress. Dr. Benjamin Browning: The Effects of certain Paint and Colour Manufactories in London on the Health of the Producers. Captain R. Hildyard: The Influence on Sanitary Progress which Medical Men might exercise in their Private Practice. Dr. Lediard: Arsenic in Domestic Fabrics. Dr. A. E. Harris: Infantile Mortality. Miss Yates: Bread Reform. Then there is to be a conversazione in the afternoon, and another in the evening, which I may call in advance a brilliant one, as the electric light is to be used freely. This entertainment is given in the City Hall, by invitation of our mayor and corporation. So far the Congress has been very successful, and the arrangements made have been most complete and thoughtful; this has been brought about by many willing workers, but especially by the endeavours of Dr. Mears of the Newcastle College of Medicine, and Mr. H. E. Armstrong.

In my letter of next week I hope to report to you the

further proceedings of the Congress; also something more about the exhibition and its contents; while I have been invited to the opening of the College of Medicine here in connexion with the University of Durham, which takes place on Monday, October 2nd.

Newcastle-on-Tyne, September 27th, 1882.

SCOTTISH NOTES.

(*From our own Correspondent.*)

A PROPOSAL is at present being considered by the profession in Fifeshire that a medical association should be formed for the county. The object of the association would be to confirm and strengthen the *esprit de corps* which should exist among the members of a liberal profession, and it is intended that the meetings should be held annually in St. Andrews, Cupar, Kirkaldy, and Dunfermline in rotation. Very satisfactory progress has already been made, nearly fifty members have agreed to join, and the association will be formally launched at a meeting to be held this week in Cupar, under the presidency of Professor J. Bell Pettigrew of St. Andrews. The inevitable dinner will follow the meeting, at which Dr. Pettigrew will deliver an inaugural address.

Dr. Keith's ovariotomy statistics have gained for him the very highest position as a practical surgeon, while his absence of all that approaches self-laudation is equally conspicuous. When he chooses to publish the results gained by him in the newer operation of hysterectomy or removal of the uterus, with or without its appendages, he is likely, judging from his experience so far, to enhance his fame. The enormous mortality in some hands, and the high average when all the cases so far published are considered, make Dr. Keith's present success almost phenomenal. I believe that up till now he has operated in thirteen cases with but one death. One of the last of his patients presented such unpromising features that her ordinary attendant, as well as the gentleman who saw her while in the country previous to the operation, felt confident that she was unequal to the shock of the operation, and their views were made known to Dr. Keith. The state of anæmia, the weak if not diseased heart occasioned by the profuse discharge at each frequently recurring period, as well as other debilitating influences, made the prognosis so exceedingly grave that there seemed almost no hope. But of all this Dr. Keith was equally well aware, while he also knew that there was absolutely no chance of his patient surviving the menopause, still several years off. He removed the uterine mass, which, with the appendages, weighed over nine pounds. The patient had an uninterrupted recovery, and I hear from her former attendant that at the end of five weeks she has been sent to the coast to complete her convalescence. When Dr. Keith gives his results we may feel confident that the fear of injury to his statistics has not deterred him from operating in any case.

The Trades Union Congress resolved at their meeting in Manchester last week to agitate in favour of open inquiry into all cases of sudden and accidental death in Scotland. From other quarters the Lord Advocate has been urged in the same direction; but it will be strange if public opinion in Scotland be found favourable to coroners' inquests. Their remarkable verdicts in England have not generally been considered elucidatory in complex cases, whereas the skilful methods of the Procurator Fiscal, commonly assisted by competent medical men, have left few loopholes for the guilty, while causing a minimum of irritation when no guilt is found. When a post-mortem examination is required, in the vast majority of cases little further inquiry is necessary, a satisfactory explanation is afforded, and further expense is saved.

Though usually highly appreciated in Scotland, it appears that at least two of the many hydropathic institutions recently built have had to succumb for want of support. One in the immediate neighbourhood of Edinburgh has been bought at a very small proportion of the original cost, and will now be converted into a good class school; while it appears that the indefatigable Miss Clugston is anxious to possess herself of the Kilmalcolm Establishment, that she may institute a home for convalescents or incurables. This is so much against the wishes of the villagers and villa residents that they have determined upon united action, and will, if possible, raise sufficient capital to purchase the building.

An enthusiastic meeting of the leading inhabitants of Hawick was held last week, when it was determined to establish a "Technical and Scientific College for the South of Scotland" in that town. Considering the good results already attained by the science class, with its insignificant accommodation, we may anticipate a useful institution, if Hawick can but obtain the sympathy and support of the neighbouring towns. A large sum of money has already been guaranteed.

In the eighth line of my last week's Notes the word "rainfall" should read *rain-band*. The prediction there alluded to was by Mr. Piazzi Smyth, the Scottish Astronomer-Royal, and it has since been much commented on. The Duke of Argyll especially records observations which go to show that such hits as that made by Mr. Smyth with the spectroscope are not likely often to follow the use of that instrument, at least till the conditions affecting the rain-band are more fully understood, and its true value among other factors is better known.

IRELAND.

(*From our own Correspondent.*)

DURING the session 1881-82 there were in the Queen's College, Cork, 279 matriculated students and 23 non-matriculated, or a total of 302 in the Faculty of Medicine. Of these 106 were new entries, while the total number of students on the books of the College was 402, as contrasted with 327 in the preceding session. In last February the Queen's University was dissolved, and its graduates made graduates of the Royal University of Ireland, a change which the President is of opinion will act injuriously on higher education. In consequence of the large increase of students year by year the accommodation in the College buildings has proved inadequate, more especially in reference to the chemical laboratory. The present state of this department is very bad, and the President trusts that the necessary funds for the erection of a new laboratory, for which application was made last year, will shortly be provided. In the previous report the want of assistants to the professors in the experimental branches of science, and of the necessity that existed for increasing the teaching staff in the Faculty of Medicine, were referred to. These wants have become more pressing every day on account of the change which has taken place in the mode of teaching the physical sciences and the increase in the number of students.

On the 5th prox. the Council of the Royal College of Surgeons in Ireland will elect examiners for the diploma in dental surgery. Three of the examiners must be Fellows of the College, and three dentists, registered under the Dental Act, to examine in Mechanical Dentistry.

The introductory lecture at the Royal College of Surgeons Medical School this year will be delivered by Dr. Jacob, who was appointed lecturer on ophthalmic and aural surgery on the resignation of Mr. Swanzy. Mr. Smyly will give the address at the Meath Hospital, Mr. Kennedy at the Mater Misericordiæ, and Dr. Quinlan at St. Vincent's Hospital.

The Hospital for Women and Children, Cork, is an admirable institution, but the present building not affording sufficient accommodation, the board of management have issued an appeal for funds to enable them to erect a suitable hospital. A sum of nearly £1000 has already been obtained, of which £700 has been received from the proceeds of a bazaar.

Considerable regret has been expressed by the untimely decease of Dr. William Thompson, of Lisburn, a surgeon of great skill and experience in the north of Ireland, and who commanded a very large practice. Last week after visiting a patient in Belfast he was returning to his home, and at Dunmurry Station he incautiously crossed the line, and while doing so was knocked down by a passing train, which caused such injuries as produced death in a few minutes. The deceased was a M.D. of the University of Edinburgh and a Fellow of the Royal College of Surgeons in Ireland.

He settled in Lisburn some thirty years since, and became connected with the County Infirmary, while his skill as an able practitioner spread far beyond the limits of the locality in which he resided. The funeral took place last Monday, his remains being followed to their last resting-place by a very large concourse. Two of those who helped to carry the coffin from the Cathedral to the graveyard were Dr. Musgrave and Mr. Green, the first and last pupils of the deceased.

A nurse, aged twenty-two, belonging to the Belfast Royal Hospital, died last week from strychnine poisoning. At first her death was attributed to epilepsy, but further inquiries and an analysis of the contents of the stomach proved unmistakably that it was a case of poisoning from strychnine. The poison was obtained from the surgery of the hospital, which, from the evidence, it appeared, was more easy of access than it should have been, but the committee previous to the occurrence had framed new rules relating to its care.

THE FIFTY-FIFTH MEETING OF GERMAN NATURALISTS AND MEDICAL MEN.

(From a Correspondent.)

THE above Association, corresponding to a combination of the British Association and the British Medical Association, has just concluded its annual meeting at Eisenach, so well known to the English tourist. The meeting passed off very well and, socially considered, was a great success, though its scientific outcome fell short of the expectations of many of the members, and for reasons which are not far to seek. The choice of the place had some share in this, for many preferred to study nature, which presents itself here in all its loveliness, rather than attend the "sections;" but a more powerful cause, and one which, I am afraid, will show itself in all the future meetings, more or less, is the establishment of so many congresses of different special branches of medicine, such as for ophthalmology, surgery, and psychiatry, and recently also for clinical medicine. The meeting was very numerously attended, though many of the best-known clinical teachers of the larger universities were absent, and those few present did not take a very active part in the several discussions. The scientific work done consists of general addresses and sectional meetings. Of the general addresses that of Professor Bergmann (the successor of Langenbeck) was the only one of purely medical interest, and had for its title "The Present Methods of Wound Dressings and their Relations to Antiseptic ity." It was a popular lecture on the antiseptic treatment of wounds and an appeal to the surgeons not to allow surgery to become merely a technical art, and not to forget other important points, such as the stoppage of hæmorrhage, the condition of the parts in and near the wound, and the process of wound healing. Amongst the other general addresses Haeckel's most lucid and masterly oration on Darwin formed the *pièce de résistance*. That Darwin's greatness and merits were done full justice to by this, the foremost of Darwin's expounders, may be easily imagined. It is impossible to give even an outline of this address, which will appear *in extenso* in the "Deutsche Rundschau" for October. I may, however, mention that Haeckel concluded his speech by showing that the adoption of Darwin's theory may be quite in harmony with religion, and he cited a letter written by Darwin in 1879 to a German student who felt his religious belief shaken by the new theory, and who addressed himself to Darwin.

Dr. Assmann's address on "Atmospheric Dust" was a clear, concise, and able *résumé* of all that is known respecting its meteorological, chemical, physical, and hygienic relations.

In the different medical sections there is not much new to record, and the absence, except in the Section for Children's Diseases, of a pre-arranged important subject for discussion is especially to be regretted; there is, however, every likelihood that in future the sectional work will be better managed. Nevertheless, some of the papers read were of more than average interest.

The Gynæcological Section was the most industrious, and amongst the more important papers read were two by Olshausen; one detailing his further experience on the "Total Extirpation of the Uterus per Vaginam," and the other on the "Treatment of Retroflexion," and one by Professor P. Müller on "Puerperal Atrophy."

In the Surgical Section, presided over at one of its sittings by Langenbeck, Professor König showed a patient in whom he removed the greater portion of the sternum, which was the seat of a rapidly growing osteo-sarcomatous growth. The whole of the sternum, except the uppermost part and the xyphoid process, was removed, and during the operation air entered both pleural cavities, and also the pericardium, which was found adherent to the sternum, and was opened during the operation. The patient made a good recovery, and the wound is now almost entirely healed, except at one point where a portion of an adjacent rib is necrotic and keeps up some little suppuration.

The Section of Pathology, owing to its numerical weakness, had to be merged into the Section for Medicine. Prof. Weigert (Leipsic) described a new method of staining the nerve-fibres in the central nervous system, and showed some excellent preparations. The method consists in staining the preparations in acid fuchsin (Fuchsin, S. 130 of the Berlin Aniline Manufacture), washing in a weak alcoholic potash solution, and then mounting in the ordinary way in Canada balsam. This method has great advantages above all other methods; it selects the nerve-fibres only, of which it stains portions of the medulla, while it leaves the axis cylinder free, and it picks out the smallest fibres, such as no other reagent, not even gold chloride, does. (As aniline staining forms now such an important part in all microscopic examinations, especially in the detection of micro-organisms, and as the different staining agents vary so very much in their properties, as sent into commerce by the different aniline manufacturers, it will interest many of your readers to know that those used by Weigert, Koch, and other German pathologists are best obtained from Dr. Gübler, 17, Dufour-strasse, Leipsic.)

Of other papers of pathological interest may be cited Dr. v. Mering's paper on the "Removal of Portions of the Cerebellum in Dogs." The removal of superficial parts of both the vomer and the hemispheres produced simply temporary stiffness of the muscles of the neck (in harmony with Hughlings-Jackson's view on the function of cerebellar cortex); the removal of the whole of the vomer only was followed by permanent symptoms, consisting chiefly of incoördination (in harmony with Nothnagel's views). Dr. Gudden read, in the Neurological Section, a paper on the "Course of the Optic Nerves." From a series of experiments on young animals (cats and rabbits) Gudden does not believe either in Munk's or Ferrier's cortical centre, but places the centre of vision in the corpora quadrigemina, and distinguishes three centres—one for vision, one for the dilatation of the pupil, and one for the contraction of the pupil. The series of experiments is, however, not yet concluded. The only other incident in the pathological section was a powerful speech by Professor Zänker, in which he warmly defended Dr. Koch against the treatment the latter recently received at the hands of Pasteur at Geneva. From the feeling which this speech elicited it is evident that the arbitrary behaviour of Pasteur will still further increase the coolness existing between French and German *savants*.

In the Section for Medicine I wish to notice a paper by Professor Quincke on the Dyspnœa produced by large doses of salicylate of sodium, a paper by Professor Ewald on the Presence of Chloride of Leucin in the Gastric Juice, and one by Dr. v. Mering on the Anæsthetic Action of Acetal. Large doses of dimethylacetal and diethylacetal seem all to this author's experiments to produce anæsthesia, and even death, without affecting the heart's action. Their action would thus differ materially from that of chloral. Given to healthy men, even very large doses of these compounds produce simply sleep of a few hours' duration.

In the Section for Children's Diseases several important topics were discussed, such as animal vaccination (which found many and strong advocates), the feeding of infants and the different substitutes for mother's milk, milk as a carrier of infection, and such like. A subject for discussion at the next annual meeting, which is to be held at Fribourg, was arranged for; and at the suggestion of Dr. Steffen and Professor Demme, the tuberculosis in children, especially in its etiological and pathological relations, was chosen.

Eisenach, Sept. 24th, 1882.

Medical News.

APOTHECARIES' HALL.—The following gentleman passed the examination in the Science and Practice of Medicine, and received a certificate to practise, on Sept. 21st:—

Marmaduke Pittard, Guernsey.

The following gentleman also on the same day passed the Primary Professional Examination:—

George Birnie Hill, University College.

At the Preliminary Examination in Arts, held at the Hall on Sept. 21st and 22nd, 142 candidates presented themselves, of whom 95 were rejected, and the following 47 passed and received certificates of proficiency in General Education:—

FIRST CLASS.—Wm. Rickwood Bacot.

SECOND CLASS (in alphabetical order).—E. Barrett, C. W. Bellamy, R. A. Bramber, S. W. A. E. Broadway, G. Brown, P. A. Collington, T. A. B. Cooke, C. W. Crassweller, E. J. Cross, C. H. Dixon, E. A. Field, J. H. Garrett, G. T. Giddings, E. C. Greenway, W. J. Heazman, H. G. Henry, W. H. E. Howes, M. Imray, J. Angell James, E. B. Jeune, H. E. Knoblanch, T. H. Leggett, I. MacCarthy, H. F. Mantell, E. E. Morrall, P. L. Nettleship, F. J. Nisbet, F. J. J. Orton, Frank Osborn, C. S. Pethick, T. E. P. Pollard, E. M. Quinby, A. F. Richards, W. H. Robinson, W. H. C. Roughead, C. H. Sandbach, H. B. Shepherd, H. Archbold Smith, Percival Smith, Charles Wade, Chas. S. Watson, Chas. H. Wild, Evan Jas. Williams.

The following passed in Elementary Mechanics only:—

P. H. Daniell. | J. G. Johnson. | Ewen C. Stabb.

A BAZAAR held last week in aid of the funds of the Frome Cottage Hospital realised upwards of £100.

THE new small-pox hospital at Leeds is now ready for occupation. The cost of the building has been £2400.

THE Princess Beatrice has consented to become President of the new Shetland and Orkney Islands centre of the St. John Ambulance Association.

THE foundation stone of the new Sunderland and Durham County Institute for the Blind was recently laid in Sunderland by the Earl of Durham.

DR. ALLATINI, a Turkish physician, and distinguished for his philanthropic labours, principally in connexion with the establishment of schools, has just died.

THE yellow fever epidemic still rages in Texas and Florida. The mortality from the disease is not very great, but the anxiety and distress caused by it are considerable.

A FEVER hospital, with accommodation for twenty-four patients, is being erected at Maidstone. The buildings are to cost £3630. The site was purchased for £900, and another £800 is to be expended in enclosing it.

THE Local Board of Brentford has agreed to a sewerage scheme, the cost of which is to be £25,000. The sewage will be submitted to chemical treatment at Ealing, where works for the purpose will be erected.

THE concert given last week by Madame Adelina Patti in behalf of the funds of the Swansea Hospital was very successful, and will result in a large accession to the pecuniary means of the institution.

THE Library of the Royal College of Surgeons, which has been closed for a month for the necessary repairs, dusting, and cleaning, will reopen on Monday, Oct. 2nd. The Museum, not yet being finished, will be closed until farther notice.

ROYAL ALBERT ASYLUM, LANCASTER.—The anniversary festival in connexion with this asylum for idiots and imbeciles was held on Wednesday at Preston. At noon the Rodgett Infirmary was formally opened at Lancaster, by the Earl of Lathom. The new infirmary is intended to accommodate those patients in the asylum who are suffering from infectious diseases. After the opening of the infirmary the party proceeded to Preston, where the annual meeting of the subscribers was held in the Town-hall. The Mayor of Preston presided. The annual report showed the institution to be in a very flourishing position. There are at present 482 patients, and the annual expenditure is £17,500. Last year the income was £19,778. There is accommodation for 120 additional inmates when the funds will warrant the expenditure, and a strong appeal was made for additional contributions. The results of the treatment in the institution are described as having proved most beneficial. After the general meeting a banquet was held in Preston Town-hall.

PRIZES AT THE MEDICAL COLLEGES AND SCHOOLS.

THE following prizes and scholarships have been awarded for the Sessions 1881–82.

ST. BARTHOLOMEW'S.—Lawrence Scholarship and Gold Medal, R. J. Collyns; Brackenbury Medical Scholarship, C. A. Morton and T. W. Shore; Brackenbury Surgical Scholarship, R. J. Collyns; Senior Scholarship in Anatomy, Physiology, and Chemistry, E. C. Pettifer; Open Scholarships in Science, J. Elliott, E. C. Stocker; Preliminary Scientific Exhibition, H. W. Gardner and F. N. Brown; Jeaffreson Exhibition, E. O. Fountain; Kirke's Gold Medal, R. J. Collyns; Bentley Prize, R. J. Collyns, R. D. Batten; Hichen's Prize, C. B. Innes; Wix Prize, J. Robinson; Harvey Prize, H. C. Chapman; 2, J. Gay; 3, G. L. Wells; 4, H. H. Fisher; 5, S. K. Allcock; 6, Wunderlich; 7, G. P. Newbolt. Practical Anatomy, Senior, Foster Prize, C. Heath; 2, S. H. Habershon; 3, F. E. Mathews; 4, E. Jessop; 5, H. C. Chapman; 6, O. R. Julian; 7, S. J. Palmer; 8, F. P. Maynard; 9, J. P. Roughton. Practical Anatomy, Junior, Treasurer's Prize, R. Humphry; 2, T. M. Wright; 3, R. H. Coombes; 4, T. W. Duff; 5, R. F. Towers; 6, L. P. Shadbolt, 7, B. Furnwall; 8, J. Soutter; 9, H. W. Gardner; 10, H. D. Rolleston. Junior Scholarships, W. G. Spencer; 2, J. Gow; 3, H. D. Rolleston.

CHARING-CROSS.—(Summer Session, 1881, and Winter Session, 1881–82).—Llewellyn Scholarship: certificate and £25, C. F. Clarke. Golding Scholarship: certificate and £15, H. A. Sheppard. Governors' Clinical Gold Medal, E. Atkins. The Pereira prize: certificate and £5, A. E. Dodson. Senior Anatomy: silver medal, H. A. Sheppard. Junior Anatomy: bronze medal, E. T. Gregory. Physiology: silver medal, E. S. Barnett. Practical Physiology: silver medal, A. R. Jolliffe. Chemistry: silver medal, F. O. Stedman. Practical Chemistry: silver medal, G. Morgan. Senior Medicine: silver medal, G. H. Phillips. Junior Medicine: bronze medal, G. Morgan. Senior Surgery: silver medal, G. H. Phillips. Junior Surgery: bronze medal, G. Morgan. Botany: silver medal, R. Fletcher; Materia Medica: silver medal, G. Morgan. Midwifery: silver medal, G. H. Phillips. Forensic Medicine; certificates, E. Atkins and H. d'Arcy Power (equal). Pathology; silver medal, G. H. Phillips.

GUY'S.—Open Scholarship in Arts: Albert Edward White. Open Scholarship in Science: John Wychenford Washbourn. The Treasurer's Gold Medal for Medicine: Lauriston Elgie Shaw. The Treasurer's Gold Medal for Surgery: John Alfred Parry Price. Beaney Prize for Pathology; John Alfred Parry Price. Michael Harris Prize for Anatomy: George Elliott Caldwell Anderson. Fourth-year Students: Louis Albert Dunn, first prize, £35; Thomas Carr, second prize, £10. Third-year Students: Edgar Ernest Masters, first prize, £25; Francis Barclay Willmer Phillips, second prize, £10. Second-year Students: George Elliott Caldwell Anderson, first prize, £25; Reginald Maurice Henry Randell, second prize, £10. First-year Students: John Wychenford Washbourn, first prize, £50; Sydney Wacher, second prize, £25.

KING'S COLLEGE.—Warneford Scholars: Ernest Paul Alphonse Mariotte, Richard John Stephens, Cecil Danford Greenwood. Sambroke Exhibitioners: Philip Henry Hensley, Evan Lewis Hickey. Clothworkers' Exhibitioner: James Wheatley. Senior Medical Scholar: Walter Tyrrell Brooks. Second-year Scholar: John Power Gray. Junior Medical Scholars: Albert Carless, James Wheatley, Albert Lindow. Winter Session: Jelf Medal, John William Kealy; Warneford Endowment, Herbert Crowley Dent and John William Kealy, prizes; Leathes Endowment, Obadiah Johnson, prize; Anatomy, Charles Harry East, prize; Physiology, Cornelius Clement Caleb and Robert Chambers Priestley, equal, prizes; Chemistry, John Freeland Freeland, prize; Medicine, Robert Garner Lynam, prize; Clinical Medicine, Robert Garner Lynam, prize; Surgery, Robert Garner Lynam, prize; Clinical Surgery (Professor Wood), Walter Tyrrell Brooks, prize; Clinical Surgery (Professor Lister), Bertram Herbert Stivens, prize; Comparative Anatomy and Zoology, Arthur Egerton Hensley, prize. Summer Session: The Todd Clinical Prize, Lewis Archer Buck; the Tanner Prize, Herbert Crichton M'Donall; Obstetric Medicine, Charles Harry East, prize; Forensic Medicine, Nathaniel Henry Turner, prize; Materia Medica, Augustus Frederick Dimmock and George Wale, prizes; Practical Chemistry, Philip Percy Manning, prize; Botany, Arthur Egerton Hensley, prize; the Carter Prize for Botany, Albert Carless, gold medal and prize; Pathological Anatomy, Nathaniel Henry Turner, prize; Practical Physiology, Ernest Paul Alphonse Mariotte, prize; Practical Biology, Arthur Egerton Hensley, prize.

LONDON.—Entrance Science Scholarship: £60 scholarships, F. J. Smith; £40 scholarship, not awarded. Buxton Scholarships: £30 scholarship, S. R. Hodge; £20 scholarship, J. W. Pugh. Lethaby Prize for proficiency in Chemistry, £30, A. J. Richardson. Anatomy, Physiology, and Chemistry: £25 scholarship, given by the Medical Council, F. Hichens; Anatomy and Physiology, £30 scholarship given by the Medical Council, H. Cropley. Clinical Medicine; £20 scholarship, given jointly by the House Committee and the Medical Council, R. F. Fox. Clinical Surgery: £20 scholarship, given jointly by the House Committee and the Medical Council, R. F. Fox. Clinical Obstetrics: £20 scholarship, given jointly by the House Committee and the Medical Council, A. J. Richardson. Dressers' prizes for zeal, efficiency, and knowledge of Minor Surgery, given by the House Committee: £15 prizes, J. M. Evans and J. E. Crisp; £10 prizes, J. Thomas and F. Hichens; £5 prize, not awarded. Dissection prizes: H. Jabboor, jun., and H. Jabboor, sen. Osteology prizes, in lieu of £15 not awarded for Minor Surgery: J. Vincent and C. T. Samman.

MIDDLESEX.—Brodrip Scholarships for the best examination at the Bedside and in the Post-mortem Room; First, A. E. Tate; second, George Frost. Governors' Prize, W. H. Crago; Exhibition in Anatomy, first year, Bernard Lawson; Medicine, W. H. Crago, H. J. Thornton; Surgery, W. H. Crago, H. J. Thornton; Pathological Anatomy, W. H. Crago, H. J. Thornton; Practical Surgery, C. L. Hudson; Anatomy, C. L. Hudson; Physiology, C. L. Hudson; Chemistry, T. H. Williams; Dissections, E. G. Foot; Midwifery, C. L. Hudson; Forensic Medicine, E. G. Foot, J. S. Robertson; Materia Medica, T. H. Williams; Practical Chemistry, R. Trood, T. H. Williams; Botany, T. H. Williams; Practical Physiology, E. B. Osmond; Comparative Anatomy, C. L. Hudson;

Psychological Medicine, C. L. Hudson; Medical Society's Prize, C. L. Hudson. Entrance Scholarships, Oct. 1881, first, A. B. Hinde; second, E. B. Osmond. Certificates of honour in order of merit: Surgery, R. S. Bowker, W. W. Linney; Pathology, P. W. Bassett-Smith, V. H. W. Wingrave; Practical Surgery, A. F. Stace, E. H. Freeland, B. F. Hartshorne, N. H. Forbes; Anatomy, A. F. Stace, E. Foot, J. K. Frost, E. H. Freeland, J. S. Robertson, N. H. Forbes; Physiology, A. F. Stace, J. S. Robertson, A. Y. Reily, E. H. Freeland; Chemistry, J. Petherbridge, C. J. Tabor, H. Baldwin; Midwifery, J. S. Robertson, A. Kirby, A. Y. Reily, E. G. Foot; Materia Medica, Ifor Davis, W. J. Spoor, C. J. Tabor, R. Trood, B. Lawson, A. B. Hinde; Practical Chemistry, Ifor Davis, G. S. Ware, C. J. Tabor, W. J. Spoor, A. E. Brackenbury, C. E. Thomas, B. Lawson, A. B. Hinde, E. Nicholson, R. Roberts; Botany, B. Lawson, R. Trood; Practical Physiology, M. Bates, S. Nicholson, F. M. Cealy, C. J. Tabor, G. S. Ware, E. L. Buckland, B. Lawson, A. Thomas; Comparative Anatomy, E. T. Collins; Psychological Medicine, H. G. Nicholson, A. W. Ogle, J. S. Robertson, E. H. Freeland, E. G. Foot; Dissection, C. L. Hudson, W. E. Newey; Prosectors, R. S. Bowker, W. H. Livermore; H. G. Nicholson, J. R. Roberts.

DURHAM, Newcastle-upon-Tyne.—Summer Session, 1881: Botany, medal and first certificate, William Jaques; Practical Chemistry, medal and first certificate, W. Jaques. Practical Physiology, medal and first certificate, W. H. Wigham; Materia Medica, medal and first certificate, William Jaques. Midwifery, medal and first certificate, not awarded. Medical Jurisprudence, medal and first certificate, A. Hepworth. Therapeutics, medal and first certificate, A. Hepworth. Pathology, medal and first certificate, Charles S. Blair.—Winter Session, 1881-82: Senior Anatomy, medal and first certificate, J. S. Revely. Junior Anatomy, medal and first certificate, F. Proud. Dissections, medal and first certificate, T. Clifford. Senior Physiology, medal and first certificate, not awarded. Junior Physiology, Medal and first certificate, A. Green. Medicine, medical and first certificate, S. Brookfield. Surgery, medal and first certificate, C. H. Milburn. Public Health, medical and first certificate, S. T. Prues.

OWENS COLLEGE.—Turner Scholarship, £25, no competition. Dansville Surgical Prize, £30, John M. Beverley and John S. Withers. Platt Physical Exhibitions, £15 each, second year, no competition; first year, Robert Briggs Wild, and prox. acc., William Gordon Little. Dauntsey Entrance Scholarship, £100, Robert Briggs Wild. Class prizes: Third year—Medicine, £5 5s., W. Thorburn; Midwifery and Diseases of Women and Children, £5 5s., R. Jennings and Ernest Septimus Reynolds, and prox. acc., Gilbert Lacy Barrits and John Hervey Jones; Pathology and Morbid Anatomy, £5 5s. Wm. Thorburn; Medical Jurisprudence, £3 3s., William Jones Black; Hygiene, £3 3s., Wm. Thorburn; Practical Surgery, £3 3s., John Hervey Jones; Ophthalmology, £3 3s., Wm. Thorburn. Second year—Anatomy, £5 5s., Alfred W. H. Walker and Richard Thomas Williamson; Physiology, £5 5s. Otto Jackson Kauffmann; Surgery, £5 5s., Otto Jackson Kauffmann; Materia Medica, £3 3s., Richard Thomas Williamson. First year—Anatomy, £5 5s., George Frederick William Braide; Physiology, £5 5s., Robert Briggs Wild; Practical Physiology, £3 3s., Brian Melland; Practical Chemistry, £3 3s., John William Talent; Botany, Lectures, John Beard; Practical Botany, James Edwin Thompson.

QUEEN'S COLLEGE, BIRMINGHAM.—Winter Session: Medicine, medal and first certificate, S. C. Lawrence. Surgery, medal and first certificate, J. H. North. Pathology, medal and first certificate, S. C. Lawrence. Physiology, medal and first certificate, C. H. Parslow and G. H. Melson (equal). Practical Physiology, medal and first certificate, G. H. Melson. Anatomy, medal and first certificate, C. E. Parslow. Junior Anatomy, medal and first certificate, W. B. Featherstone. Practical Anatomy, medal and first certificate, C. E. Parslow. Junior Practical Anatomy, medal and first certificate, W. F. Emery. Chemistry, medal and first certificate, W. Aston.—Summer Session: Midwifery, medal and first certificate, C. E. Oldacres. Forensic Medicine, medal and first certificate, E. D. Vinrace. Practical Chemistry, medal and first certificate, S. Barwise. Materia Medica, medal and first certificate, S. H. Harrison. Botany, medal and first certificate, W. B. Featherstone. (The Sands-Cox prize was not awarded.)

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ANDREWS, ARCHIBALD G., M.R.C.S., has been appointed a House-Physician at the London Hospital.

CASEY, PHILIP FORTH, L.R.C.S.I., L.K.Q.C.P.I., has been appointed Visiting Surgeon to Hay Gaol, N.S.W.

DESHON, FREDERICK PETER, M.R.C.S., L.S.A.Lond., has been appointed Medical Superintendent at the Beechworth Lunatic Asylum, Victoria.

DUNLOP, J. D., M.B.Edin., L.R.C.S.E., has been appointed Senior Medical Officer at the Adelaide Hospital, Australia.

FENTON, GEORGE, M.R.C.S., L.S.A.Lond., has been appointed Honorary Consulting Accoucheur to the Western Dispensary, vice T. Chambers, M.D., F.R.C.P., resigned.

HENRY, THOMAS, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Pomeroy Dispensary District, co. Tyrone, vice R. Henry, resigned.

HODGSON, G. G., M.R.C.S., has been appointed Honorary Surgeon to the Bootle Borough Hospital, vice C. Swaby-Smith, M.R.C.S., resigned.

HORMAZDJI, ROBERT M., M.R.C.S., L.R.C.P., L.S.A.Lond., L.M., has been appointed Assistant-Surgeon to the Cape Copper Mining Company (Limited), at their Works at the Cape of Good Hope.

JOHNSON, THOMAS, L.F.P.S.Glas. & L.R.C.P.E., has been appointed Medical Officer to the No. 2 or Knottingley District of the Pontefract Union, vice E. Stone, resigned.

KNIGHT, CHARLES FRED., M.D., M.Ch.Q.U.I., has been appointed Physician to Mercer's Hospital, vice Duffey.

LEE, HENRY BOYNTON, F.R.C.P., late of the Leeds School of Medicine and Infirmary, has been appointed Demonstrator of Anatomy and Physiology at the Sheffield School of Medicine, vice Dr. White.

NEVE, ERNEST F., M.B. & C.M.Ed., M.R.C.S., has been appointed Resident Physician to Cowgate Dispensary, Edinburgh.

REDWOOD, THOS. HALL, M.D., C.M.Dur., L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Rumney Urban Sanitary District.

SYMES, JAMES, L.R.C.P.Ed., L.R.C.S.I., has been reappointed Medical Officer of Health for the Briton Ferry Urban Sanitary District.

VIVIAN, GEORGE E., M.R.C.S., has been appointed Medical Officer for the Tollerton District of the Great Ouseburn Union.

WALLERS, WILLIAM, M.R.C.S., has been appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, vice Firth, resigned.

WANKLYN, JAMES A., F.C.S., has been reappointed Public Analyst for the Borough of Buckingham.

WEBB, HUGH GEORGE, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer of Health for the Northleach Rural Sanitary District, vice the Poor-law District Medical Officers, whose appointments have expired.

WEISS, WILLOUGHBY, L.D.R.C.S.E., has been appointed Honorary Dental Surgeon to the Western General Dispensary, Marylebone-road, W.

WILLETT, GEORGE G. D., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the No. 2 District of the Bristol Union.

WINDLE, BERTRAM C. A., A.B., M.B., B.Ch., Dip. State Med. Univ. Dub., has been appointed Pathologist and Registrar to the General Hospital, Birmingham.

Births, Marriages, and Deaths.

BIRTHS.

BROWNRIGG.—On the 25th inst., at Hill House, Gravesend, the wife of T. Annesley Brownrigg, M.A., M.D., of a son.

DOUGLAS.—On the 26th inst., at Avenue House, Leamington, the wife of W. Douglas, M.D., of a son.

LEFTWICH.—On the 20th inst., at Newcross-road, the wife of Charles Harcourt Leftwich, Surgeon, of a son.

MANSON.—On the 13th inst., at Littlewood-park, Alford, Aberdeenshire, the wife of Dr. P. Manson, of a son.

MARRIAGES.

BRANFOOT—OGG.—On the 16th ult., at Coonoor, Neilgherry Hills, Madras Presidency, Arthur Mudge Branfoot, Esq., M.B., Surgeon Indian Medical Department, to Alice Stewart, daughter of G. S. W. Ogg, Esq., M.B., Officiating Deputy Surgeon-General to Her Majesty's Forces, Secunderabad.

MEYERS — WOODLEY. — On the 21st inst., at the Parish Church, Lewisham, by the Rev. C. D. Farrar, Herbert Henry Meyers, M.R.C.S., L.R.C.P.Ed., of Battersea, to Jessie Amy, second daughter of John Woodley, of Forest-hill.

PHILLIPPS — ANDERSON. — On the 21st inst., at St. Bartholomew's Church, Sydenham, William Alfred Phillipps, M.D., L.R.C.P.Lond., of Faversham, Kent, eldest son of William Phillipps, Esq., of Plymouth, to Isabella Grace, eldest daughter of William Carling Anderson, Esq., of Aberdeen House, Sydenham.

SAVILLE—BOOTH.—On the 21st inst., at St. Margaret's Church, Holyrood, Prestwich, Manchester, John George Saville, L.R.C.S., L.R.C.P., Radcliffe, Manchester, to Elizabeth, elder daughter of the late John Booth, Esq., of Radcliffe. No cards.

WILCOX — CROWLEY. — On the 23rd inst., at All Saints' Church, Shooter's-hill, Henry Wilcox, M.B., M.R.C.S., of Dorchester House, Herbert-road, Woolwich, to Edith Mary, eldest daughter of L. A. Crowley, Esq., of Cambridge House, St. John's, S.E.

DEATHS.

BAIN.—On the 21st inst., at Fulham-park-gardens, London, James Bain, M.D., Surgeon-Major H.M. Bombay Army (retired), second son of the late John Bain, Esq., of Morriston, Lanarkshire, N.B.

BELL.—On the 20th inst., at Raby-place, Bath, Henry Bell, M.D., aged 85.

BIRD.—On the 21st inst., at Kirby House, Heaton Chapel, near Stockport, John Durham Bird, M.B., aged 44.

GREENLEES.—On the 10th ult., at Muskoka, Canada, Alexander Greenlees, M.B. Toronto, aged 30.

HOGG.—On the 21st inst., at Morar, Gwalior, after a long period of illness, Francis Roberts Hogg, M.D., Surgeon-Major, eldest son of the late John Hogg, M.D., formerly of Truro, Cornwall, aged 46.

ROGERS.—On the 21st inst., at Seamur, Bedford, Charles James Rogers, Deputy Surgeon-General, Indian Medical Department, in his 60th year.

THOMPSON.—On the 22nd inst., William Thompson, M.D., F.R.C.S.I of Lisburn, aged 76.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A POETICAL VIEW OF DEATH FROM CONSUMPTION.

WE extract the following passage from a book, the "Life and Letters of Edgar Allan Poe," by John H. Ingram, published by Hogg. All biography, by the way, is a branch of study peculiarly proper to medical men, and not least so the biography of a man like Poe. Poe's constitution was intensely of the poetical cast, with strange, but not uncommon, relation to the abnormal and the morbid. His life and his death, his habits and his opinions, are all worthy of the attention of those who wish to understand man and the bounds of his mental range. Hearing of the death of a friend from consumption, he wrote:—"How could she die of consumption! But it is a path I have prayed to follow. I would wish all I love to perish of that gentle disease. How glorious! To depart in the heyday of the young blood, the heartfull of passion, the imagination all fire, amid the remembrance of happier days." Our object is not to criticise this romantic view of phthisis, which seems to us as false as can well be, but to record it.

Beta.—We think the charges mentioned are quite reasonable. We do not like to see separate charges for medicine; but this does not affect the reasonableness of the tariff as a whole.

A DISAGREEABLE DUTY.

To the Editor of THE LANCET.

SIR,—I feel that on professional grounds the unpleasant duty of accompanying an injured person to a hospital should be well represented. A short time ago I took a serious case of accident to the London Hospital. There had been sudden and great loss of blood from an injury to the vessels of the upper part of the forearm, and the man had been insensible, with stertorous breathing, ten or fifteen minutes previous to my arrival. The only notice taken of my request for a chair was by the porter addressing himself to the patient with, "'Ere, you can walk all right; catch hold of my arm." I insisted that the semi-unconscious man (whose brachial I still held under my fingers) should be provided with a chair. This was then procured, and he was wheeled into the surgery, where a nurse was ordered to attend on the patient. She approached with scissors, apparently to remove the compress I had applied, and proceeded to take the arm from me, to which I objected, and said I was a medical man, and wished the house-surgeon to take the case out of my hands. He was informed of this by the nurse, whom he ordered to apply an elastic bandage, and ostentatiously proceeded to examine a minor case. Eventually I gave my history of the injury without eliciting either a reply or a look from this official, who turned on his heel.

Now, although I am not one who expects to be treated with deference by a fellow professional, I certainly think that a house-surgeon, if he cannot practise absolute politeness in the consulting-room, should try to attain to the standard of courtesy which usually exists among medical men, and not treat with contempt an outside practitioner whose duty brings him within the precincts of the hospital.

I am, Sir, your obedient servant,

Shoreditch, Sept. 19th, 1882. ALFRED WISE, M.D.

"CHRONIC URETHRAL INFLAMMATION."

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "Young Surgeon," may I suggest that he should satisfy himself as to the absence or presence of a gouty diathesis. If his examination leads him to suspect its possibility, I would suggest the trial of salicylate of lithia in ten-grain doses three times a day.

I am, Sir, yours faithfully,

Kinston, Warwick, Sept. 25th, 1882. KENNETH W. MILLICAN.

THE SAMARITAN MOVEMENT IN GERMANY.

THE question of affording instruction to members of the general public as to the first steps necessary to be taken in cases of accidents, &c., has excited a good deal of attention in German medical circles. Fears have been expressed that the holding of certificates of competency would give those who have passed the examination an exaggerated idea of their medical skill. Dr. Esmarch, of Kiel, the promoter of the movement, has explained that it is not pretended to impart any instruction as to curative measures, but simply to diffuse information as to the steps which should be taken to prevent any aggravation of the injury pending the arrival of medical aid. The fact of the assistance of the Samaritans being in all cases gratuitous, tends, in his opinion, to remove any danger of the abuses which it has been feared might affect the value of the system.

"MEDICAL OPPOSITION TO IMPROVED REMUNERATION TO MEDICAL MEN."

To the Editor of THE LANCET.

SIR,—As you have thought fit on the authority of an anonymous "correspondent" to make an attack upon me, I appeal to your sense of justice to allow me to reply. I assume that your "correspondent" was none other than Dr. Barnes himself, as no one but himself had any interest in the matter, and if he has not suppressed the fact you have, that *he* commenced the controversy by making a personal attack upon the guardians as a body and upon three of them individually by name. He says he wrote for the "benefit of the public" and also in "justice to himself." I replied in "justice to the guardians," which seems to have astonished you. The vice-chairman had pointed out that if the salary had not been increased Dr. Barnes had supplemented it pretty considerably by sending in a bill for "extras," almost equal in amount to the salary, and therefore the request for an increase was unanimously refused. I was not present myself on that day, being ill at home with erysipelas of the face, but had I been present I should have voted as my colleagues did. In my reply to Dr. Barnes's attack I pointed out that his extra charges in midwifery cases were unheard of, so far as I know, and out of all proportion to those of the other district officers of the union.

He had recourse to instruments in about one case in five—i.e., in twenty-one out of ninety-nine; but I think one of these was a case of version and not of forceps, but it does not materially alter the percentage. I adduced statistics published by the Royal Maternity Charity, from which it appeared that out of 20,000 cases instruments were resorted to in only 501 cases, or about one in 400; from the Lying-in Charity of Guy's Hospital, where the proportion was one in 132, and from our Workhouse Infirmary, where 117 consecutive cases were delivered without any resort to instruments at all. In face of such facts as these I thought—and still think—that Dr. Barnes's charges were monstrously out of proportion to anything I had ever heard or read of.

You assert that there is nothing "more certain than that professional opinion is in favour of a more frequent use of instruments." I should esteem it a very great favour if you would give me your authority for so astounding a statement, inasmuch as all the teachers I have ever heard and all the books I have ever read—and they have not been few—have most emphatically protested against such a practice, and only to be had recourse to as a *dernier ressort*. You also say that it is "greatly to be regretted that a medical guardian should raise such a question in the newspapers." I beg to say that I did *not* "raise" the question. It was "raised" by Dr. Barnes himself in the newspaper, and but for his attack upon the guardians my pen would have been silent. Your last sentence embodies a most extraordinary code of morality. You say that "most medical guardians, even if they approved of an adverse vote against a medical servant, would be thankful for a reasonable excuse for taking no part in the discussion." As it happens, not being present, I did not "take a part in the discussion." On the same grounds I suppose you would excuse a butcher, grocer, or baker, if such happened to be guardians, from not taking a part against a member of his fraternity. Are medical guardians more than others to sit silent or wink at any unusual charges made by their brethren? As you appear to have seen only *one* side of the correspondence, I send you the whole, not with any expectation that you will print it, still less read the whole of it, but I would draw your attention to the second paragraph of Dr. Barnes's letter, in which you will perceive that he flatly contradicts himself, admitting in one sentence what he had distinctly denied in the preceding one.

In conclusion, I would ask you if you think that "professional opinion," which you assert is in favour of the more "frequent use of instruments," would justify their use in one case in five, or, for the matter of that, one in fifty-five or a hundred and five? My own experience in a midwifery practice of considerable extent, extending over a period of close upon thirty years, in which I attended several thousand cases, enables me to say that they are really not urgently required oftener than about once in 600 or 700 cases.

I am, Sir, your faithful servant,

Croydon, Sept. 26th, 1882. J. H. SHORTHOUSE.

*** We gladly insert Dr. Shorthouse's letter, which raises certain interesting points, the consideration of which, on account of the lateness of the arrival of the communication, we must reserve till next week.—ED. L.

"A CASE FOR HELP."

THE following subscriptions, received through Dr. Stewart, in Mr. Gaffney's case (THE LANCET, Sept. 16th, p. 464) were announced to us too late last week for publication:—

Mr. W. H. Rix, Tunbridge Wells	£5	0	0
Mr. C. Coates, Bath	2	2	0
Dr. F. H. Alderson, Hammersmith ..	1	1	0
Medicus, Surbiton	0	5	0

The following additional subscriptions have been received at THE LANCET Office on behalf of the above:—

Mr. Vacher	£2	2	0
Anonymous	2	0	0
Dr. de Havilland Hall	1	1	0

J. B.—It would serve the gentleman right to be made to pay the fee, and if our correspondent has been materially hindered in his movements or holiday by consideration for this engagement, he would do right to take him into court. If not, we should scarcely advise him to take the trouble to go legally into the matter with such a gentleman. It is surely unusual for a stranger to write and ask a medical man to see after a nurse for his wife. By our correspondent's perhaps too ready compliance with that instruction he certainly "greatly obliged" his correspondent, who proved very unworthy of the kindness.

A SUGGESTIVE POST-MORTEM.

To the Editor of THE LANCET.

SIR,—I enclose you notes of a post-mortem made a few days ago at the coroner's request.

A young woman, aged twenty-seven, was found dead in her bedroom one morning, having retired in her usual health the previous night at 9 P.M. The brain and other internal organs had a healthy appearance, though the lungs were congested. The stomach contained about eight ounces of a brown-coloured fluid, smelling strongly of chloroform. On being filtered, this yielded half an ounce of pure chloroform, which settled to the bottom of the graduated measure in which it was contained. It answered to the different tests, passing the vapour through a red-hot glass tube, dissolving camphor, &c. The exact amount taken could not be ascertained, but four half-ounce vials labeled chloroform were found between the mattresses empty, and smelling strongly of that substance. I forward this as a matter of interest, so much chloroform unchanged and unabsorbed being found in the stomach twenty hours after it must have been taken: as she retired at 9 P.M., was found dead at 9 A.M. the next day, and the post-mortem was not made till 5 P.M. This case also shows the importance and probable benefit of using the stomach-pump promptly, if called to a similar case before life was extinct. Tanner gives a case where a gentleman swallowed two ounces of pure chloroform; the stomach-pump was used seven hours after, and the patient recovered.

I am, Sir, yours faithfully,
Sept. 25th, 1882. B.

Inquirer.—The name of Samuel Thompson Birchell, who in the local newspapers is described as a physician and surgeon, and who committed suicide at Spennymoor last week, does not appear either in the Medical Register or the Medical Directory.

A Young Practitioner.—Registration is necessary for either purpose.

QUERY.

To the Editor of THE LANCET.

SIR,—Will you be so good as to inform me in your notices to correspondents in what book or books I should find an account of the Biology of Putrefaction and Allied Processes?

I am, Sir, yours truly,
Newark, Sept. 19th, 1882. W. B. CLIFFORD.

*** The question is a somewhat wide one, the subject being practically coextensive with that of the life history and properties of bacteria and the microscopic fungi and algæ. The most recent researches are to be found mainly in various scientific journals and reviews, abstracts of which appear from time to time in our columns. For a general outline of our present knowledge our correspondent may consult especially Tyndall's "Floating Matter in the Air," Schutzenburger on "Fermentation," and Pasteur on "Wine." For more detailed and recent investigations, original papers in various foreign scientific and medical journals, such as *Comptes Rendus*, Virchow's *Archiv*, &c. The writings of Cohn, Pasteur, Billroth, Lister, Koch, Bastian, Wernich, and a host of others whose names might be mentioned. Very valuable information is contained in the "Mittheilungen aus dem Kaiserlichen Gesundheitsamte," Berlin, 1881.—ED. L.

"SUDDEN DEATH THREE WEEKS AFTER DIPHTHERIA."

To the Editor of THE LANCET.

SIR,—Mr. Charlton, at page 515 of last week's LANCET, refers to a case of sudden death after diphtheria, requesting an explanation. A reference to my pages, Section 819: 6, will greatly aid him. Dr. Cumming's paper enters fully into the subject, and shows how paralysis of the cardiac branches of the vagus explains some cases.

I am, Sir, yours, &c.,
Boundary-road, N., Sept. 20th, 1882. MEDICAL DIGEST.

VENESECTION.

THE New York *Medical Record* states that Dr. Fordyce Barker advocates more frequent resort to this now nearly obsolete measure. "He is convinced that in certain cases it is essential to bleed the patient, and that life may be saved thereby." Surely this conviction has never been altogether absent from the minds of medical practitioners.

Mr. R. F. Woodcock.—The best hospital tents we are acquainted with are those manufactured by Messrs. Piggott Brothers, 59, Bishopsgate Without, E.C. They are provided with raised flooring, and with double walls and roofing. Good wooden tents can be procured from Messrs. Lascelles, of Bunhill-row, E.C. Iron hospital buildings can be seen already erected on an open site in Victoria-street, S.W. As to the use of temporary hospital buildings, consult the recently issued Tenth Annual Report of the Medical Officer of the Local Government Board, pages 10 and 22.

M. G. E.—The practice is very objectionable.

TREATMENT OF EPILEPSY.

To the Editor of THE LANCET.

SIR,—Would any of your correspondents kindly advise me, from their experience, as to the treatment most likely to be successful in a case of epilepsy in an adult (male, age twenty-five)? The patient in question has suffered from epilepsy for several years, and at the present time has attacks (petit mal) about once a week. Bromide of potassium in doses of twenty to forty grains has been taken by him daily for years, and latterly valerianate of zinc has been given in addition to the bromide, which he is now taking in about three-grain doses three times a day. After commencing the zinc there was an interval of five weeks without an attack, but since then, although the doses of the zinc have been increased gradually from one grain to two and three-quarters, the attacks recur about once a week. The diet has been throughout most carefully attended to, and the usual conditions which are considered essential to the proper treatment of cases of epilepsy have been thoroughly carried out. The mind is quite unaffected, but I am sorry to say the disease has shown itself in other members of the family, a brother and sister of my patient having both suffered from it, though they are now quite free from attacks.—I am, Sir, yours faithfully,
Sept. 25th, 1882. ALPHA.

THE D-TRAP.

To the Editor of THE LANCET.

SIR,—In your answer of last week to "Still an Old Subscriber," you have not noted what, to my mind, is the most objectionable feature of the D trap—viz., the impossibility of ascertaining the condition of the leaden tongue. Should it be injured by accident, or corroded by time, it may be absolutely useless as a trap, and yet present a perfect external appearance. The best trap yet invented is the simple syphon-bend—the quicker in the bend the better.

I enclose a sketch plan of the drainage system I am at present introducing into this asylum. It has been found efficient, economical, and well adapted to our special needs.—I am, Sir, yours obediently,
Murray Royal Asylum, Perth, Sept. 1st, 1882. A. R. URQUHART, M.D., Physician Superintendent.

*** We fully concur with Dr. Urquhart that the system of house-drainage as shown in the plan he sends us is thoroughly efficient. The essential points indicated are those embodied in the model by-laws of the Local Government Board as to house drainage.—ED. L.

Mr. Thomas Richardson.—The answer depends entirely on the nature of the diploma.

Pyrexia has not enclosed his card.

Melbourne had better write to the Secretary of the College.

INFECTIOUS DISEASE HOSPITALS AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Our infectious hospital is open (three combined authorities), and the Board have decided to admit diphtheria. I am not aware of any infectious hospital admitting such disease, and shall feel obliged if you will give me your opinion before I protest.—I am, Sir, yours truly,
Sept. 20th, 1882. SANITAS.

*** Diphtheria is essentially a disease to be dealt with by such rigid isolation as can alone be provided in hospitals such as the one referred to, and unless all the wards are occupied by other diseases, cases of diphtheria should on no account be excluded. In the report on infectious hospitals, recently issued by the medical officer of the Local Government Board, many instances will be found of the isolation of this disease in hospitals provided by sanitary authorities.—ED. L.

USE OF APOMORPHIA.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers give me any account of the use of apomorphia hypodermically? Is it applicable in such cases of alcoholic coma as one gets in police practice frequently where there is great difficulty in administering an emetic? If so, is one-tenth of a grain sufficient, and should it be repeated? I do not find anything about it in the text-books.

I am, Sir, yours truly,
Sept. 26th, 1882. M. M.

THE MORTALITY AT GRANADA.

ATTENTION has recently been called to the fact that Geneva is the most healthy city in Europe, the annual mortality being 17 per 1000. Granada has the reputation of being the most unhealthy, the death-rate being as high as 65 per 1000 according to a continental journal.

POISONING BY EATING MUTTON.

To the Editor of THE LANCET.

SIR,—In Husband's Forensic Medicine a case is given of a boy being poisoned by eating mutton. As there seem to be very few records of this form of poisoning, I beg to bring the following case to your notice. A family of four persons, with a friend, partook of an apparently sound joint of mutton. The next day, Monday, the whole family suffered from slight diarrhœa. On the Tuesday the youngest daughter, aged twenty, presented all the symptoms of severe peritonitis: pain, persistent vomiting, and pyrexia. On this day the father was also seized with severe vomiting, the two other members of the family still suffering from diarrhœa. I was informed that the friend had also suffered from diarrhœa. The youngest daughter and the father continued to present symptoms until the following Monday, when, after the usual treatment for peritonitis, the symptoms gradually were off, leaving both patients extremely weak. We often hear of butchers being prosecuted for selling bad meat, but it is not often that we see or hear the result of eating this meat. In the above case the illness was most distinctly traceable to its cause, although the symptoms did not come on until the day following, and the cause of the illness might possibly have been overlooked if the accident had not happened to a highly intelligent family. I remain, Sir, yours faithfully,

Putney, September 26th, 1882. EDW. F. GRUN.

Difficulty.—The case is a hard one. It happens almost by the hundred yearly, and, in the absence of any special circumstances, should not hinder the registrar from accepting certificates.

Dr. Elder.—Yes.

"HABITUAL DRUNKARDS."

To the Editor of THE LANCET.

SIR,—Under the above heading a suggestion appears in THE LANCET of September 16th by "M.D.," in which he proposes to deal with them by sending them for a voyage in a teetotal ship, which strikes one as not at all a bad idea; but when he proceeds to recommend the establishment of a retreat in a small island, "one of the Channel or Scilly Islands," it scarcely holds out the same prospect of success.

I would remind "M.D." that the ex-King Cetewayo declared that he had no distilleries in his own country, but he found to his regret that a shop had been opened recently on the confines for the sale of intoxicants, and he feared it would be impossible for him to prevent them being sent to his country from without. It is also matter for the grave consideration of "M.D." whether, in dispensing with the guides during the wanderings of his patients, he may not have eventually to institute an efficient staff of coastguardsmen, also liquor proof, or he may possibly find to his discomfort that, although the much-dreaded public-house is avoided, he has unwittingly opened up a new field to the smuggler, and that his patients have very rapidly developed marvellously aquatic tastes.

I beg "M.D." will pardon me for throwing cold water on his philanthropic project. I remain, Sir, yours faithfully,

Sept. 21st, 1882. G. P.

X. M. will oblige by forwarding his name and address, not necessarily for publication.

Dr. Stanley Murray's paper is marked for insertion.

Dr. Dearden (Church).—Soon.

Mr. C. S. D. Rabbitt. It is against our rule.

"TESTIS IN PERINEO."

To the Editor of THE LANCET.

SIR,—Allow me to place on record another instance of this rare malformation, described in your issue of Sept. 16th. The deformity was observed at birth, and the child is now eleven days old, well-nourished, and healthy-looking. The right half of the scrotum is normal, and contains the corresponding testicle; the left half is slightly smaller, or apparently so, and without testicle. On the left side of the perineum, near the inner edge of the thigh, and encroaching slightly by its upper part on the angle between the scrotum and thigh, is a soft swelling of the size of a marble, covered by normal skin, and containing the left testicle. The latter is movable, but cannot be placed in the scrotum or groin. The spermatic cord is traceable upwards.

I am, Sir, yours obediently,

Oldham, Sept. 21st, 1882. R. BRYDEN HILL, M.D.

SEWER GAS.

To the Editor of THE LANCET.

SIR,—As much attention is now being devoted to the generation of zymotic diseases caused by the leakage of gases from the sewers, it is interesting to know that the South Metropolitan Gas Company have just had the ground opened in several places to see if any leakages arose from the joints of the pipes laid in 1879, and they have found them perfectly tight. The material used for this purpose was Spence's metal.

I am, Sir, your obedient servant,

Lombard-street, London, Sept. 21st, 1882. J. W. BARTLETT.

DAY NURSERIES.

IN answer to a request for information on this subject, a correspondent desires to direct attention to the "Crèche Annual" (Morgan and Scott), by Mrs. Hilton, who founded and still superintends the largest crèche in England.

R. Scot Skirving, M.B.—In an early number.

Mater.—The Middlesex Hospital.

DRAIN-PIPES: A QUERY.

To the Editor of THE LANCET.

SIR,—Perhaps some of your numerous readers may be able to offer a hint or two in explanation of the following phenomenon, which has struck me, and probably many others, as being somewhat remarkable, and not without interest in connexion with the effects exerted by drain-pipes on the contiguous soil and atmosphere. Three feet below the surface of the lawn in front of my residence, which is situated miles away from any town, run three earthenware drain-pipes. Two of them convey the sewage from the house and stables respectively to the intercepting sewer; the third is simply a conduit for carrying off storm water. The point to which I wish to direct attention, and as to the *rationale* of which I should be glad of a suggestion, is the fact that the course of these drains is distinctly marked by the increased luxuriance in the growth and the deeper tint of the grass immediately over them as compared with the surrounding turf. To what can this variation in the condition of the grass be attributed?

I am, Sir, your obedient servant,

September, 1882. M.D.

ODE TO CARBOLIC ACID.

To the Editor of THE LANCET.

SIR,—Impromptu lines on reading a telegram that the wounded in Egypt were treated antiseptically:—

Now war is o'er, and times are placid,
We'll sing of thee, carbolic acid!
Thou art the friend I would repair to
For many ills that flesh is heir to.

Our fathers knew thee not, but tried
Their remedies with guesses wide;
None approached to thee at all, some
Used, however, Friar's balsam.

I proved thee first in '67,
The wounded bless'd thee as from Heaven;
They lauded thee in grateful terms,
Yet knew no theory of germs.

Should dreaded fever now appear,
And friends avoid the place with fear;
With thee we'll dire contagion meet,
Confining it with sprinkled sheet.

Against pyæmia, putrescent fever,
We hold in thee a mighty lever;
For sarcinæ and ailments peptic,
All hail to thee, great antiseptic!

Barcelona, Sept. 21st, 1882. W.

SPURIOUS HERMAPHRODITISM.

To the Editor of THE LANCET.

SIR,—It may be of interest to state that I have at present under observation a very similar case of spurious hermaphroditism to that mentioned in your columns as being born at the British Lying-in Hospital last Monday, and that I hope to show the child at our next medical meeting here in November. The child is now five months old, and although I attended the mother in her confinement, my attention was not directed to the genitals till six weeks later. The description given by Dr. Fancourt Barnes answers in every way for my patient; but it is possible to pass a bent probe into what seems to be the meatus urinarius, and feel its tip in the perineum, thus suggesting there is a vagina behind the perineum. Can Dr. Barnes pass a probe in a similar manner? If so, the question of an operation laying open the occluded vagina seems natural. I am, Sir, yours truly,

Canterbury, Sept. 23rd, 1882. BRIAN RIGDEN.

"EXTRAORDINARY SURGICAL OPERATION."

To the Editor of THE LANCET.

SIR,—With regard to an article recently published in your journal on the above subject, I beg to state that neither Dr. Hinds, Dr. Cullen, nor myself had, directly or indirectly, anything to do with the production you so justly censure. We were all considerably disgusted when, a week or so after its appearance, our attention was called to it. None of us are subscribers to the paper in which it was published. I have ascertained that the article in question was written by a very young apothecary's assistant and embryo medical student ignorantly, but with the best possible intention. I at once remonstrated with the editor on his having published the article without consulting me, but thought best to let the matter drop there.—I am, Sir, yours truly,

Fermanagh Club, Enniskillen, BAPTIST GAMBLE.

Sept. 23rd, 1882.

Chandos.—The main question is a little delicate, and does not admit of an absolute answer. But the case seems to us one in which the ordinary rule could not be held to apply in permanency and to a second generation. The distance and other facts make it unreasonable. At a convenient opportunity it will be right to come to an understanding. The amount of fee is a question to be determined by a due and combined consideration of the custom of the neighbourhood, and the rule which regulates our correspondent's charges in regard to patients at similar distances and in similar circumstances, with perhaps a little difference in favour of the family in view of its medical relations.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Miller, London; Mr. Richardson; Mr. F. Treves, London; Mr. Hawkins; Messrs. Talbot, Gloucester; Dr. Murray, Edinburgh; Mr. Barker, London; Dr. Drummond, Newcastle-on-Tyne; Dr. Gabbett, London; Dr. Neill, New Zealand; Dr. Shorthouse, London; Mr. Wingrave, London; Dr. Evatt, London; Mr. Molyneux; Dr. McVail, Glasgow; Mr. F. Churchill, London; Messrs. Evans, Sons, and Co.; Mr. Dolan, Halifax; Herr Gustav Fischer, Jena; Dr. C. S. W. Cobbold, Earlswood; Dr. Megarry, London; Mr. Rabbitt, London; Mr. Millican, Kineton; Dr. G. A. Rogers, London; Mr. W. E. Williams, Dwyland; Dr. Barr, Glasgow; Mr. C. Bischof, London; Mr. Bartlett, London; Dr. West, London; Mr. Moore, Plymouth; Dr. R. B. Hill, Oldham; Mr. Fenton, London; Dr. Armstrong, Newcastle-on-Tyne; Brigade-Surgeon Oughton; Dr. Thomson; Mr. H. Weekes; Mr. R. Rawlinson, London; Dr. Watney, London; Mr. Bernard; Dr. Dearden, Church; Mr. Van Buren, Aylesbury; Mr. Gamble, Enniskillen; Mr. Skirving, Dublin; Mr. Stanley Murray, Richmond; Dr. C. J. Williams, London; Mr. Quinlan, Bombay; Mr. Wheeler, Wokingham; Mr. Hodgson, London; Mr. Grinling, Burton-on-Trent; Mr. Smith, Chipping Ongar; Dr. Nicoll, New-cross; Mr. Dreschfeld; Messrs. Krohne and Sesemann; Dr. Jacob, Dublin; Dr. Collingridge; Mr. Marcus Beck, London; A Friend of the I.M.D.; Workhouse Medical Officer; S. W., Lancaster; Y. Z., Truro; Sanitas; Difficulty; B.; Alpha; Mater; Agathos; X. M.; S. J. C.; Trocar; D. S.; B. A. F.; Matron, Leicester; J. P.; F.R.C.P.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Powell, Liverpool; Mr. Vacher, Birkenhead; Mr. Smith, Halifax; Mr. Lever, Stratford-on-Avon; Messrs. Harvey and Reynolds; Messrs. Smith and Sons, Norwich; Dr. Thompson; Mr. Graham, Malcolm; Mr. Palmer, Victoria-park; Messrs. Lee and Martin, Birmingham; Mr. W. Adams, London; Mr. Tallent, Sheffield; Mr. Williams; Dr. Clark, Folkestone; Dr. Linde, Ross; Mr. Mayers; Messrs. Jones and Son, Llanfyllin; Mr. Branfoot, Madras; Mr. Walker, Potton; Mr. Savill, Radcliffe; Messrs. Black and Johnston, Bretchen; Dr. Alpha, Hull; Mr. Lay, Great Ayton; Mr. Meadows, Leicester; Dr. Burnett, Mottram; Mr. Pace, Newcastle; Mr. Neame, Birchington; Mr. Robson, South Shields; Miss Harris; Mr. Clough, Ambledon; Header; M.R.C.S.E.; F.R.S.; W. R., Bristol; J. W. D.; W. H.; H. M. C.; K. B. R.; Medicus, Wigan; Medicus, Worthing; Nemo; N. A., Dawley; C. M., Preston; Medicus, Brixton; A. B., Colchester; Marathon; Medicus, Rockferry; Registrar, Bath; Lombardy; X. Y. Z.; A. B., West India-road; O. K. R.; W. K., Newport; Surgeon; V. M.; W. L. B.; C. P.; H. W. R., Wood-green; Principal, Seaford; Surgeon, Swinton; T. G., Bristol; A. B. C., Paddington; M.R.C.S., Kennington; &c., &c.

Sanitary Engineer, Nottingham Daily Express, Manchester Guardian, Bristol Mercury, Leeds Mercury, Western Morning News, Driffield Observer, Ceylon Observer, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Sept. 28th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Sept 22	29·81	N.W.	56	52	104	65	47	..	Fine
,, 23	29·95	W.	50	49	69	59	42	..	Foggy
,, 24	29·95	S.W.	57	53	80	64	49	..	Hazy
,, 25	29·87	S.W.	60	57	96	67	50	..	Cloudy
,, 26	29·49	E.	57	54	89	63	50	..	Cloudy
,, 27	29·24	S.	55	53	86	61	40	..	Hazy
,, 28	29·67	W.	52	47	100	63	42	·07	Bright

Medical Diary for the ensuing Week.

Monday, Oct. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, Oct. 3.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Oct 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown.—Dr. Hopkins Walters, "On a Case of Post-partum Avulsion of the Uterus, &c., followed by recovery."—Dr. Champneys, "On an Obliquely Contracted Pelvis of Unilateral Synostosis."—Dr. Gervis, "On a Case of Transverse Septum in the Vagina."—Dr. Matthews Duncan, "On a Case of so-called Imperforate Hymen."

Thursday, Oct. 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, Oct. 6

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, Oct. 7.

ROYAL FREE HOSPITAL.—Operations, 2 P.M

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